


CA1
AK
-74T21

GOVT



Digitized by the Internet Archive
in 2022 with funding from
University of Toronto

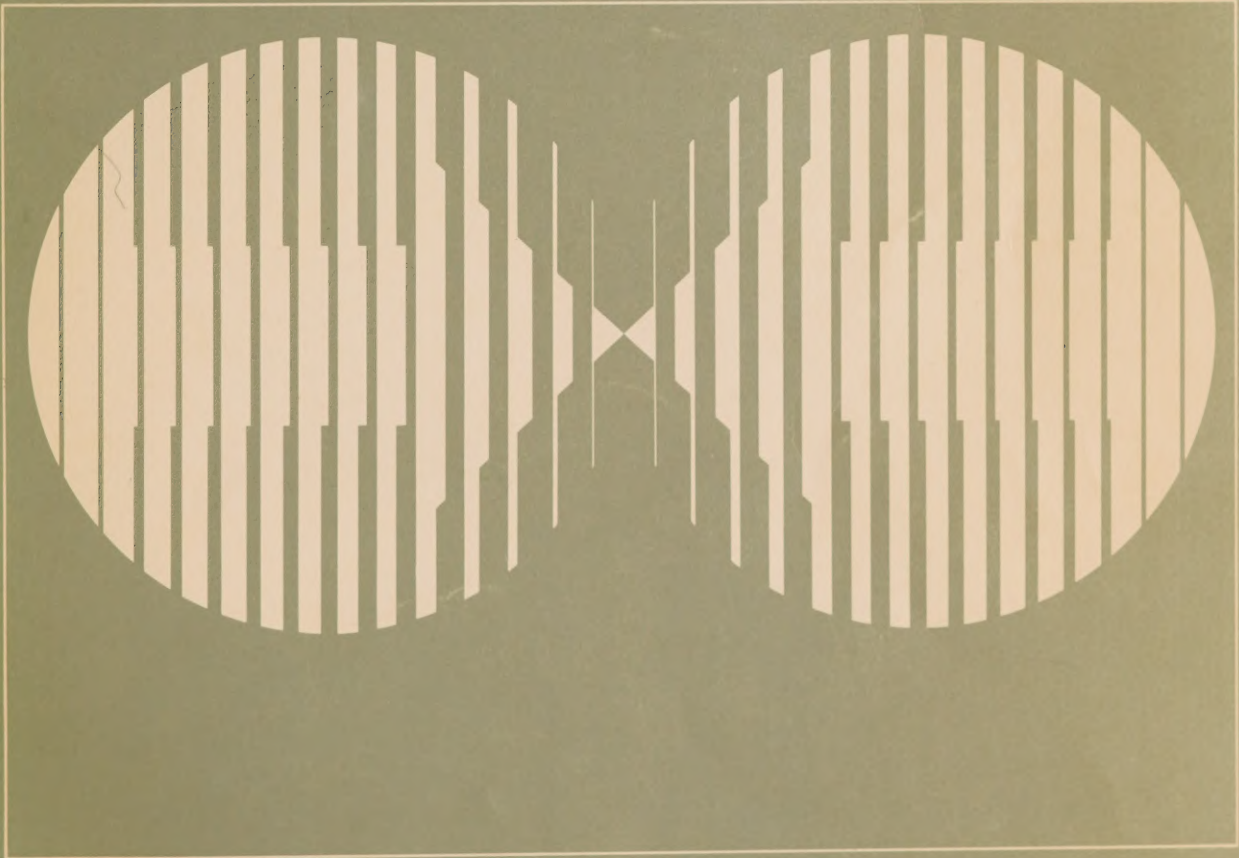
<https://archive.org/details/31761115507063>

Telecommunications: The Canadian Experience

*Canada, Public Archives
General publications, 6-21*

✓

CAIAK
-74T21





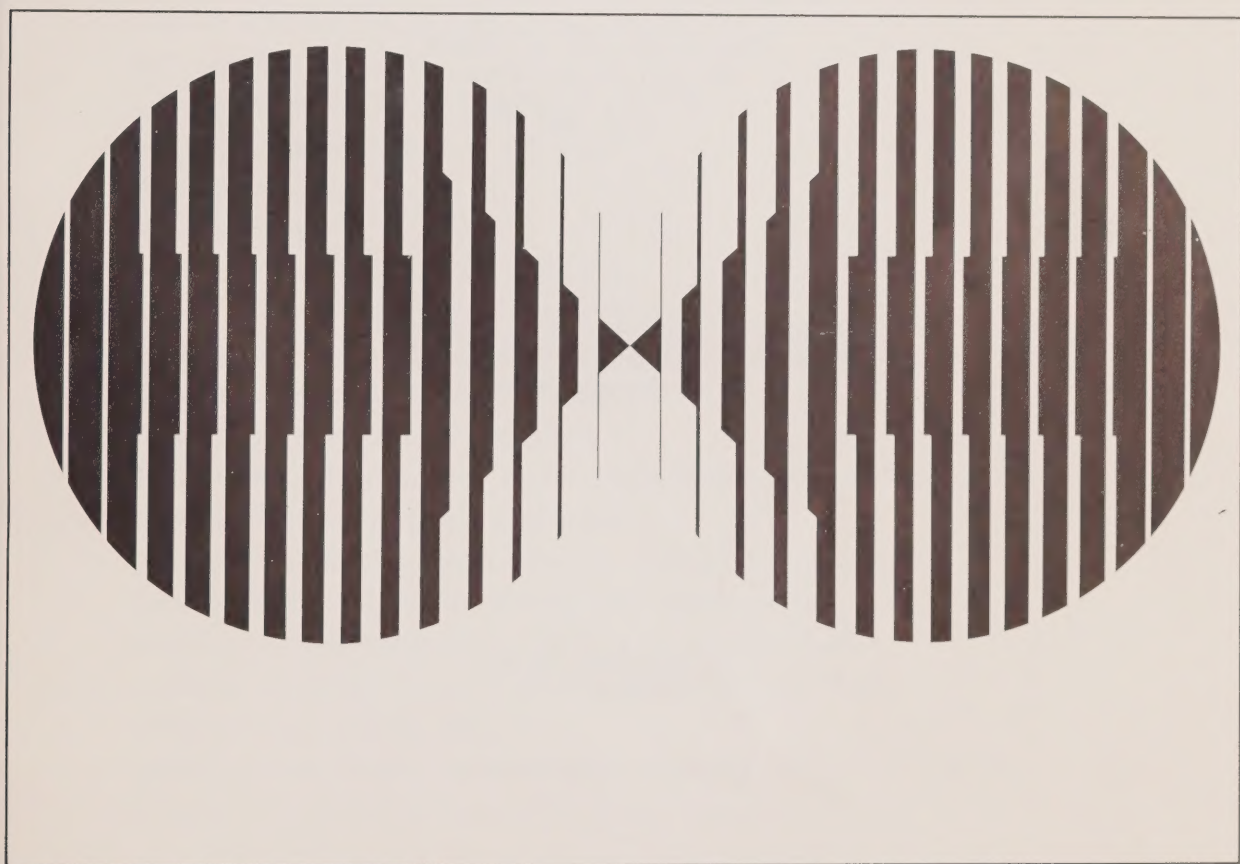
Public Archives
Canada

Archives publiques
Canada

Telecommunications: The Canadian Experience

①

A Public Archives of Canada Exhibition



This Near Print Catalogue
is available on request in French
or in English as required from the

PUBLIC ARCHIVES OF CANADA
395 Wellington Street
OTTAWA, Ontario
K1A 0N3

A thematic inventory of maps featuring
Telecommunications is also available
from the same address

©

Information Canada
Ottawa, 1974

Cat. No.: SA2-74/1974

ACKNOWLEDGEMENTS

Research and preparation of the exhibition and catalogue were by Margaret Mattson, Manuscript Division, assisted by Brian Hallett, Public Records Division, and the following divisional representatives: Jim Knight, National Map Collection; George Bova and Léo LaClare, National Film Archives; Peter Robertson and Auguste Vachon, Picture Division, and the Public Archives Library.

Valuable assistance was rendered by Michèle Corbett, Peter Bower, Thomas A. Hillman, Michael Carroll, Carmel Wrinn and many other staff members of the Public Archives of Canada too numerous to mention. The display was designed by George Rhyn of Information Canada, Expositions, with the co-operation of Tom Hawkins of the Displays and Publicity Division of the Public Archives of Canada.

The Public Archives of Canada would like to extend its appreciation to the following for their contributions and co-operation:

Bank of Nova Scotia Archives, Toronto

Bell Canada, Montreal

Bell Northern Electric, Ottawa

British Columbia Archives, Vancouver

CBO, Ottawa

CKAC, Montreal

CTV Television Network Ltd., Toronto

Canada Centre for Remote Sensing, Ottawa

Canadian Broadcasting Corporation, Ottawa, Toronto and Montreal

Canadian Geographical Journal, Ottawa

Canadian Marconi Company, Montreal

Canadian National/Canadian Pacific Telecommunications, Toronto

Canadian National Railways, Montreal

Canadian Overseas Telecommunication Corporation, Montreal

Canadian Radio-Television Commission Library, Ottawa

Canadian Railway Historical Association, Delson, Quebec

Canadian Telecommunications Carriers Association, Ottawa

Communications Canada, Ottawa

Communications Canada, Communications Research Centre, Shirley Bay

Glenbow - Alberta Institute of Calgary, Calgary

Global Television Network, Toronto
 McGill University Archives, Montreal
 National Library of Canada, Ottawa
 National Museum of Science and Technology, Ottawa
La Presse, Montreal
 Public Archives of Nova Scotia, Halifax
 Richardson Archives, Winnipeg
 William D. Robb, Jr., Montreal
 Royal Canadian Signals Museum, Kingston
 Saskatchewan Archives Board, Regina
 Société de mathématiques appliquées Inc. (SMA), Ottawa
 Leonard Spencer, Montreal
 Graham Spry, Ottawa
 State Archives of North Carolina, Raleigh, North Carolina
 Peter Stursberg, Ottawa
 Telesat Canada, Ottawa
 Trans-Canada Telephone System, Ottawa
 University of New Brunswick Library, Fredericton
 Yukon Territorial Archives, Whitehorse.

A special note of thanks to Miss E.M.L. Geraghty of Bell Canada,
 J.L. Coffell of the Canadian Marconi Company and E.A. DeCoste of the National
 Museum of Science and Technology for their valuable research assistance.

CONTENTS

	Page
INTRODUCTION	1
I PROLOGUE: BEFORE THE TELEGRAM	3
Messengers	3
Early Transportation	4
Postal Services	5
Early News Coverage	6
Visual Telegraphy	7
II THE ELECTRIC TELEGRAPH: LANDLINE AND CABLE	10
The Telegraph	10
Prince Edward Island - New Brunswick Cable	18
Atlantic Cable	19
Pacific Cable	20
III THE TELEPHONE	23
IV WIRELESS TELEGRAPHY	31
V THE STIMULUS OF WAR, 1914-1918	38
VI WIRELESS TELEGRAPHY MOVES NORTH	40
VII RADIO	44
Early Radio Broadcasting	44
National Radio Broadcasting	53
VIII TELEVISION	62
Pioneer Years	62
The Advent of Commercial Television	65
IX TOWARDS PERFECTION: EXAMPLES OF CARRIERS AND SYSTEMS, 1950's and 1960's	68
Canadian Overseas Telecommunication Corporation	68
Microwave	69
Tropospheric Scatter	71
X THE SATELLITE AGE	73
XI SOME DATES IN CANADIAN TELECOMMUNICATIONS	76

INTRODUCTION

One of the most significant advances in little more than one hundred years has been the development of telecommunications. Defined as "any transmission, emission or reception of signs, signals, writing, images, sounds or intelligence of any nature, by wire, radio, optical or other electromagnetic systems", telecommunications has conquered both time and space in the movement of information. The speed and variety of our present communication services have revolutionized our society. Today, action and reaction occur almost simultaneously; the transmission of information has become one of our greatest industries and is so generally accepted that little thought is given to the evolutionary means by which the "communications explosion" occurred.

The existing structure of Canadian telecommunications is one of the most sophisticated in the world. Canada's unique problem in linking all parts of the country by telecommunications has made its people particularly receptive to new technological development in the field and has stimulated activity in the area of invention. Long a beneficiary of foreign research, Canada has used innovative means to adapt each invention to meet its peculiar domestic needs. Even in the North, where vast distances, extreme climate and difficult terrain have presented countless challenges to communication carriers, Canada has succeeded in providing telecommunication services to sparsely populated and isolated communities. Canada, a world leader in the field of domestic communications, has accepted the principle of a "right to communicate" and directs its efforts toward the goals of universal access of information and equality of service for all its citizens.

This exhibition attempts to outline some of the Canadian responses and contributions to the constant stimuli and change of the "electric age". The approach has been to emphasize, where possible, the social impact of the various media such as: telegraph, telephone, radio and television. The telegraph was, for example, used as a means of uniting the nation, the cable to link the empire, the radio to assist in the development of the North.

A small introductory section illustrates a few of the early forms of communication concluding with Canadian examples of visual telegraphy. The term "telegraph" adopted in 1792 in France, was initially used to describe any apparatus for transmitting messages to a distance; thus, hilltop beacons, flags and heliographs are examples of early telegraphy.

The exhibition illustrates effects rather than scientific features of the various inventions and avoids the multitude of legislative regulations governing their use.

Finally, an effort has been made to indicate the growing complexity and interdependence of the modes of telecommunications up to the present day. The sections are by necessity arbitrary and oversimplified as are the items chosen. The advent of the computer and the data-processing industry, which

is a significant part of the modern telecommunication service in Canada, has not been included as simplified and visual materials of an archival nature were not accessible. In many of the other areas, the materials available were scarce, demonstrating the need of archives not to overlook the acquisition and preservation of the records of one of the greatest developments of our time. For instance, despite the outstanding contribution of "ham" operators in the development of the radio, no meaningful manuscripts of this activity are presently in the Public Archives of Canada.

A century ago Alexander Graham Bell invented the telephone in Brantford, Ontario. This historical overview of telecommunications in Canada is offered as a tribute to a remarkable era of achievement. Perhaps this exhibition will not only increase public appreciation and awareness but also stimulate future historical research as well.

MARGARET MATTSON

I PROLOGUE: BEFORE THE TELEGRAM

The selected examples of early communication in Canada culminating in the advent of visual telegraphy have been included to emphasize the isolation and narrow perspective of early Canadian society.

There have always been attempts to improve communications or the exchange of ideas between people but the challenges of time and space were never successfully met before the advent of telecommunication technology.

MESSENGERS

1. Letter from A.N. McLeod, agent for the North West Company, Fort William, to James Grant at Fond du Lac, 2 June 1816.

The letter contains instructions to intercept the Hudson's Bay Company messenger, Jean-Baptiste Lagimonière, who left Montreal with letters for the Hudson's Bay settlement of Red River.

Manuscript

PAC, Miscellaneous Records, Relating to Lord Selkirk's Colony and the Red River Disturbances, 1815-1821, RG4, B46.

2. "Return to the Cabane after running Moose, Done & foot-sore." Moody, Hampden Clement Blamire (? - 1869) [attributed to].

Pen and ink drawing: 202 x 163 mm.

PAC, Paintings, Drawings and Prints Section, C-35060.

3. Statement by James FitzGibbon about the action taken by Mrs. Laura Secord in June 1813, dated 11 May 1827.

Laura Secord warned Lieut. James FitzGibbon, the commander of a British outpost near Niagara Falls, of a projected attack by the Americans.

Manuscript

PAC, Nineteenth Century Pre-Confederation Papers, MG24 I75.

4. Meeting of Laura Secord and FitzGibbon, June 1813. Smith, Lorne Kidd (1880 - ?).

Oil painting: 482 x 635 mm.

PAC, Paintings, Drawings and Prints Section, C-11053.

EARLY TRANSPORTATION

5. "Montreal and Quebec stage." *Quebec Gazette*, 24 January 1811.

Stages ran between Quebec and Montreal as early as 1721, but it was not before 1730 that a good carriageable road was opened.

Public record

PAC, *Quebec Gazette*, RG4, D1, no. 2392.

6. Winter stage-coach. Shanly, Charles Dawson (active 1842-1848).

Pen and ink drawing: 242 x 312 mm.

PAC, Paintings, Drawings and Prints Section, C-13869.

7. "A new steam boat." *Quebec Gazette*, 2 October 1817.

Public record

PAC, *Quebec Gazette*, RG4, D1, no. 2750.

8. "Horse - ferry boat crossing from Quebec to Pt. Levi." In Bigsby, J.J. *The shoe and canoe*. London, 1850. Vol. 1, frontispiece.

Engraving: 70 x 85 mm.

PAC, Paintings, Drawings and Prints Section, C-18159.

9. "A Winter View of the Falls of Montmorenci, from the Road on the Ice fronting it Taken 12th of April by James Peachy 1781." Peachy, James (active 1774-1797).

This view illustrates various forms of transportation.

Water-colour: 343 x 515 mm.

PAC, Paintings, Drawings and Prints Section, C-2019.

10. "Posting on the St. Lawrence During Winter." Smyth, Coke (1808-1882). In Smyth, Coke. *Sketches in the Canadas*. London, ca. 1840.

Lithograph: 273 x 375 mm.

PAC, Paintings, Drawings and Prints Section, C-1027.

POSTAL SERVICES

11. Copy of commission from Intendent Bégon to Sieur Lanouiller to establish post office and messenger services at Quebec, Three Rivers and Montreal, 27 January 1721.

Thomas Lanouiller secured the privilege of carrying the mail on this overland mail service in 1721, the year the mail service was first organized in Canada.

Manuscript

PAC, Documents relating to New France and Quebec, 17th to 20th Century, MG8 A6, Vol. 7.

12. Memorandum from Hugh Finlay, Postmaster General, to Governor Frederick Haldimand, 29 August 1778.

Finlay, Quebec's first postmaster, describes the difficulties in delivering mail in the Province of Quebec.

Manuscript

PAC, Haldimand Papers, MG21, Additional Manuscripts 21860, part 1.

13. Post office advertisement. *Quebec Gazette*, 20 September 1764.

Public record

PAC, *Quebec Gazette*, RG4, D1, no. 14.

14. "Passengers and Mail, Crossing the River." C. Krieghoff delt. Kell Bro. Lithrs. Castle St. Holborn. Published by John Weale, London, 1860. Krieghoff, Cornelius (1815-1872).

Lithograph: 222 x 280 mm.

PAC, Paintings, Drawings and Prints Section, C-13468.

EARLY NEWS COVERAGE

15. Message by Capt. John Ross, 12 August 1851.

Sir John Ross, famous as an Arctic navigator was on an expedition in search of Sir John Franklin. The message was found 11 July 1952, in a cairn on Prospect Hill near Assistance Bay in the Arctic.

Manuscript

PAC, Ross Papers, MG24 H5.

16. "Sir John Ross's Expedition in search of Sir John Franklin." A printed copy of an advertisement for subscriptions to Sir John Ross's expedition in search of Sir John Franklin in 1851.

A copy of this advertisement was also located with the previous item in a cairn on Prospect Hill near Assistance Bay in the Arctic.

Manuscript

PAC, Ross Papers, MG24 H5.

17. "1st communication with the natives of Boothia Felix." In Ross, Sir John. *Narrative of second voyage in search of a North-West passage*. London, Webster, 1835. Opposite p. 243. Ross, John (1777-1856).

An encounter between the expedition of Sir John Ross and a group of Eskimos on the Boothia Peninsula, Northwest Territories, 9 January 1830.

Mezzotint: 190.5 x 254 mm.

PAC, Library.

18. Early news dispatch. *Quebec Gazette*, 28 May 1821.

Public record

PAC, *Quebec Gazette*, RG4, D1, no. 3119.

VISUAL TELEGRAPHY

19. "Profil et elevation de la tour de la lanterne située sur un rocher a l'entrée du port de Louisbourg, 1733."

This plan shows the first lighthouse in Canada and the second in North America as it was when completed. The lighthouse is an early form of shore to ship communication.

Plan; coloured transcript: 49.4 x 35.4 cm.; 1:60

PAC, National Map Collection, 250-Louisbourg-1733(1937).

20. Part of a list of signals employed by Vice-Admiral Charles Saunders for the expedition against Quebec in 1759.

The list gives a specific series of pennants for each division as well as for all the anticipated manoeuvres of the fleet.

Manuscript

PAC, Northcliffe Collection, MG18 M, Series 3, Vol. 24.

21. A view of the landing place above the Town of Quebec, describing the assault of the enemy, 13 September 1759. Swaine, Francis (1740-1782).

Oil painting: 299 x 457 mm.

PAC, Paintings, Drawings and Prints Section, C-2736.

22. Signals used by the Royal Navy in the St. Lawrence during the War of 1812.

Manuscript

PAC, Nineteenth Century Pre-Confederation Papers, MG24 F10.

23. Letter from George Fowler, Deputy Assistant Quarter Master General, to Major Foster, Military Secretary, 8 November 1815.

A request for compensation to inhabitants for land used by telegraphic services.

The British established a military semaphore system on the St. Lawrence River in 1808. It served in both military and civilian capacities and was not abandoned by the military until the 1840's.

Manuscript

PAC, British Military and Naval Records, Telegraphic Service, 1797-1844, RG8, "C" Series, Vol. 371.

24. Plan of telegraph at L'Islet adjacent to the farm of Frederick Challifour on the St. Lawrence River.

This was a typical station erected by the British Military Telegraphic Service along the St. Lawrence River. It was used primarily to relay advanced warning of the approach of ships. After its military usefulness declined, the civil authorities argued for the preservation of all stations on the grounds that they were indispensable aids to business and administrative agencies.

Manuscript

PAC, British Military and Naval Records, Telegraphic Service, 1797-1844, RG8, "C" Series, Vol. 371.

25. "Officers Barracks, Cape Diamond, Quebec." In Hawkins, A. *Picture of Quebec*. Neilson Cowan, Quebec, 1834. Facing p. 158. On stone by Sproule from an original by Capt. Alderson, R.E. Bourne Lithr.

Telegraph located at end of the parade square.

Lithograph: 98 x 145 mm.

PAC, Paintings, Drawings and Prints Section, C-46904.

26. "View of Cape Diamond, the citadel and part of the City of Quebec, with the monument erected to General Wolfe, June 1838 fct...." Ainslie, Henry Francis (1803-1879).

The telegraph is located within the citadel.

Water-colour: 229 x 321 mm.

PAC, Paintings, Drawings and Prints Section, C-516.

27. *This plan of the City of Quebec by special permission is respectfully inscribed to the mayor and corporation ... 1845.*

Of special note on this fascinating plan of Quebec are the towers for visual telegraphy located high on the citadel. This system was used to signal ships approaching from either direction.

Map; hand coloured print: 49.5 x 64.5 cm.; 1:6,000

PAC, National Map Collection, 340-Quebec-1845.

28. Description of semaphore telegraph with instructions, used at Quebec during the War of 1812.

Manuscript

PAC, British Military and Naval Records, Freer Papers, RG8, "C" Series, Vol. 1712.

29. Diagram of Major General Pasley's Pattern Telegraph, drawn by Master Clarke Roberts, and sent 2 October 1847, by Pasley to his son Charles, who was on duty with the British Army in Canada.

A letter accompanying the diagram described the system which, with the use of lanterns and other adjustments, greatly improved visual telegraphy at night. There is no evidence that it was implemented by the British military in Canada.

Manuscript

PAC, Tyler Papers, MG29 A22.

II THE ELECTRIC TELEGRAPH: LANDLINE AND CABLE

On 24 May 1844, Samuel F.B. Morse transmitted the first message over a wire line between Baltimore and Washington in the United States. This began a new era of rapid communication as the commercial use of the electric telegraph spread across North America. Most of the small private telegraph companies in Canada were gradually consolidated by well-organized competitors dominated by the railways. The Canadian government eventually intervened to provide telegraph service to outlying districts of little interest to commercial companies.

The telegraph helped to overcome the isolation of scattered Canadian communities. Grain quotations, news dispatches and the adaptation of the telegraph to railway needs were some of the invaluable services initially offered.

With the electric telegraph and its extension, the submarine cable, came a new national involvement, a new age of awareness, encouraged by continuous technological improvement in telegraphy transmission. Today the Canadian telegraph system is one of the most extensive in the world.

THE TELEGRAPH

30. Green, Ernest. *Canada's first electric telegraph*. Reprinted from Ontario Historical Society. Papers and Records. 1927. Vol. 24. 9 pp.

A description of the line laid and operated by the Toronto, Hamilton, Niagara and St. Catharines Electro Magnetic Telegraph Company. The first message was transmitted between Toronto and Hamilton on 19 December 1846.

Pamphlet

PAC, Library, Pamphlet Collection.

31. Montreal Board of Trade. Report of a meeting ... 26 December 1846.

An outline of projects to connect Montreal with other urban centres by telegraph lines, and the financial considerations for the Montreal to Toronto project.

Public record

Canadian National Railways Records, RG30, Vol. 10484.

32. Dispatch from the Colonial Secretary, Earl Grey, to the Governor General, the Earl of Elgin, 26 March 1847.

A discussion with respect to proposals by the British North American Telegraph Association to build a telegraph line between Halifax and Quebec.

Public record

PAC, Governor General's Office Records, RG7, G1, Vol. 115, pp. 412-14.

33. *Coast telegraph chart of the Gulf and Lower St. Lawrence and Maritime Provinces ... Quebec, 1876 with additions to December, 1879.*

Coastal telegraphic communication in this area was instrumental in the rescue of many men and ships.

Map; coloured print: 50.4 x 69.5 cm.; 1:2,100,000

PAC, National Map Collection, 1102 - 1879 (1876).

34. Petition from the Quebec Board of Trade to the Governor General, the Earl of Dufferin, 17 February 1875.

A request from the Quebec Board of Trade for telegraphic communications between Matane and Rivière au Renard on the south shore of the St. Lawrence River.

Public record

PAC, Department of Public Works Records, RG11, III, Vol. 379, letter no. 48310.

35. Telegram from John Ryan, Quebec, to Amédée Papineau, Beaver Hall Terrace, Montreal, 23 October 1849.

An invitation to attend an annexation meeting and listing others who would be attending.

Manuscript

PAC, Papineau Collection, MG24 B2, p. 4473.

36. Excerpt from *The Daily Globe*, Toronto, 17 April 1865.

The telegraph marked the advent of immediate and dramatic news as illustrated here by the press coverage of the assassination of President Lincoln. The newspaper "scoop", short headlines and special correspondents became more frequent, and the area coverage vastly extended.

Newspaper

National Library of Canada, Newspaper Section.

37. Morse key, relay and sounder typical of the type of equipment used from the late 1800's up until very recently, especially on railway telegraph systems.

In 1838 Samuel F.B. Morse developed a code that could be used to transmit messages over the telegraph. Six years later, using the system developed by Joseph Henry, he was responsible for having a telegraph line built between Baltimore and Washington. The great success of this line sparked the rapid growth of telegraphy.

Artifact

National Museum of Science and Technology, Ottawa.

38. A sampling of four railroad telegrams: Grand Trunk Railway of Canada, 9 October 1858; Intercolonial Railway, 8 February 1888; Great North Western Telegraph Company of Canada, 11 January 1888, and Canadian Northern Telegraph Company, 1906.

From 1851 railroads and telegraphs were closely allied and practically every railroad station became a telegraph office. The Canadian Grand Trunk Railway system was the first to recognize the value of the telegraph for train dispatching.

Public record

PAC, Canadian National Railways Records, RG30, Vol. 2707 - 2.

39. "At the old depot." C.D. Poage, 1930.

Cartoon

PAC, Canadian National Railways Records, RG30, Deposit 76.

40. First telegram received in Winnipeg upon completion of the telegraph line between Prince Arthur's Landing and Winnipeg, 28 August 1878.

Manuscript

PAC, Miscellaneous, MG55/29.

- * List of telegraph offices and their call signals on the Canadian Pacific telegraph line between Prince Arthur's Landing and Winnipeg in 1877.

Manuscript

PAC, Woodside Papers, MG30 I11, Vol. 26, file no. 4.

41. Letter from Neil McDougall to Henry J. Woodside, 22 February 1909.

McDougall was the former Superintendent of Telegraph Service for the CPR and Woodside was the first telegraph operator to learn the profession on the CPR line in 1876.

Manuscript

PAC, Woodside Papers, MG30 I11, Vol. 15, file M.

42. Telegram from William C. Van Horne, Craigellachie, Eagle Pass, British Columbia, to his wife in Montreal, 8 November 1885.

Manuscript

Canadian Railway Museum, Delson, Quebec.

43. The interior of the first CPR mountain telegraph office, 1884.

Photograph

PAC, National Photograph Collection, C-7632.

44. A CPR telegraph gang in the mountains, 1885.

Photograph

PAC, National Photograph Collection, C-4992.

* Indicates items deleted from exhibition.

45. Macdonald, J.S. *The Dominion Telegraph*. Battleford, Saskatchewan, Canadian North-West Historical Society. Vol. 1, no. 6, 1930. 64 pp.

Pamphlet

PAC, Library.

46. *Dominion of Canada, Telegraph and Signal Service. Map no. 3 (West central section) ... 1883.*

This is the third of a set of four maps showing telegraph lines across Canada. Frederick N. Gisborne, whose name appears on the map by virtue of his position as Superintendent of the Telegraph and Signal Service, was an early and successful pioneer in Canadian telecommunication.

Map; coloured print: 89.8 x 124.2 cm.; [1:1,300,000]

PAC, National Map Collection, 1100-1883.

47. Members of the Governor General's Body Guard outside telegraph station at Humboldt, Saskatchewan during the Northwest Rebellion, 1885.

Photograph

PAC, National Photograph Collection, C-753.

48. Bank of Nova Scotia. *Cipher Code Book*. 1882. 92 pp.

From time to time new cipher codes were issued as a precaution against incorrect transmissions of money.

Pamphlet

Bank of Nova Scotia Archives, Toronto.

49. Telegram in code from Sir William Mulock, Toronto, to Sir Wilfrid Laurier, Ottawa, 10 September 1901, and the deciphered message.

Manuscript

PAC, Laurier Papers, MG26 G, Vol. 208, pp. 59196-97.

50. Dier's School of Telegraphy, Ottawa, 1908.

Photograph

PAC, National Photograph Collection, PA-42529.

51. Five telegrams illustrating the variety of uses of the telegraph by the army and militia. These telegrams were selected from a collection of almost 900 telegrams amongst the records of the Nova Scotia Command, 1862 to 1878, which shows the extent that the telegraph was used by the military. The sampling includes a telegram of the American Telegraph Company, 20 February 1862; the American Telegraph Company, 19 May 1864; the American Telegraph Company, 12 April 1866; the People's Telegraph Company, 5 November 1870, and the Montreal Telegraph Company, 24 November 1870.

Manuscript

PAC, British Military and Naval Records, Nova Scotia Command Telegrams, 1862-1878, RG8, "C" Series, Vol. 1759.

52. Copies of a series of sixteen telegrams, 6 - 17 June 1888, exchanged between Capt. Sir William Wiseman, commander of H.M.S. *Caroline*, Senior Officer, Vancouver Island, and Rear Admiral Algernon Heneage, Commander in Chief, Pacific Station, from Coquimbo, Chile, and the Admiralty in London.

One can see the Admiralty overrule Admiral Heneage's perhaps over-zealous orders to Capt. Wiseman to retake British sealing schooners which had been captured by American revenue cruisers.

Manuscript

PAC, British Military and Naval Records, Admiralty, Pacific Station, RG8, IIIB, Vol. 25.

53. Letter from H.P. Dwight, General Manager of the Great North Western Telegraph Company of Canada, to Hon. A.-P. Caron, Minister of Militia, 1 April 1885.

A message regarding the dispatching of telegraph operators and equipment and two telephones to General Middleton for service in the Northwest Rebellion.

Public record

PAC, Department of Militia and Defence Records, RG9, II, A3, Vol. 3, file N.W. Field Force.

54. Letter from F.N. Gisborne, Superintendent of the Telegraph and Signal Service, to Hon. Sir Adolphe-P. Caron, Minister of Militia and Defence, 20 April 1886.

A recommendation that awards be granted to telegraph line operators who served in the Northwest Rebellion of 1885.

Public record

PAC, Department of Militia and Defence, RG9, II, A1, Vol. 253, file A-3709.

55. "Scenes with the North-West Field Force. View of Clarke's Crossing, showing Telegraph Station, Ferry, and site of proposed redoubt." *The Canadian Pictorial & Illustrated War News*, 16 May 1885, p. 52. Curzon, F.W. (active 1885).

Lithograph: 190 x 255 mm.

PAC, Paintings, Drawings and Prints Section, C-65669.

56. The bluff at 88 Mile Post, British Columbia on the Thompson River.

The Collins "around the world" telegraph line can be seen alongside the road.

Photograph

Glenbow-Alberta Institute of Calgary, NA-674-36.

57. *British Columbia and the Yukon*. Map no. 1 of a set of nine maps showing government telegraph lines throughout Canada, 1904.

Map; coloured print: 62.3 x 30.4 cm.; 1:4,435,200

PAC, National Map Collection, 1100-1904.

58. Record of a lineman on the Bennett, British Columbia - Dawson, Yukon line of the Government Telegraph Service for June 1900.

Public record

Yukon Territorial Archives, Whitehorse.

59. Wiring gang at lunch on the Atlin-Quesnel telegraph line, British Columbia, 1900.

Photograph

British Columbia Archives

PAC, National Photograph Collection, C-67142.

60. Unloading of supplies for the construction of the Atlin-Quesnel telegraph line, British Columbia, 1900.

Photograph

British Columbia Archives

PAC, National Photograph Collection, C-67143.

61. Operator transmitting from end of wire on the Atlin-Quesnel telegraph line on the Nahlin River, British Columbia, May 1900.

Photograph

British Columbia Archives

PAC, National Photograph Collection, C-67144.

62. Telegram from J.B. Charleson, Superintendent of Public Works, Yukon District, to Sir Wilfrid Laurier, 24 September 1901.

A message announcing the completion of the telegraph line between Dawson, Yukon and Ashcroft, British Columbia.

Manuscript

PAC, Laurier Papers, MG26 G, Vol. 208, p. 59122.

PRINCE EDWARD ISLAND - NEW BRUNSWICK CABLE

63. The laying of the Prince Edward Island to New Brunswick cable.

This photograph is undated but is thought to commemorate the completion of the cable in 1852. This was the first submarine cable in North America.

Photograph

Canadian National Railways Collection

PAC, National Photograph Collection, C-70769.

64. A telegram of the New York, Newfoundland and London Electric Telegraph Company from Sackville, New Brunswick to Charlottetown, Prince Edward Island, 20 November 1858.

The New York, Newfoundland and London Electric Telegraph Company replaced the original cable which failed shortly after it was completed in November 1852.

Public record

PAC, Canadian National Railways Records, RG30, Vol. 2707-31.

65. Letter from Francis H. Gisborne to Herbert Bushell, 22 May 1940.

Letter relates the participation of F.N. Gisborne, father of F.H. Gisborne, in the laying of the Prince Edward Island to New Brunswick cable in 1852.

Manuscript

Public Archives of Nova Scotia, vertical manuscript file, F.N. Gisborne.

ATLANTIC CABLE

66. Field, Cyrus W. *The Atlantic Telegraph*. Bradbury & Evans. Whitefriars, 1856. 20 pp.

Cyrus W. Field, Vice-President of the New York, Newfoundland and London Electric Telegraph Company and the American entrepreneur behind the Atlantic cable, was introduced to the idea by F.N. Gisborne in 1854. Gisborne was attempting to improve communications between Europe and North America by building a landline across Newfoundland and connecting it with the mainland by a submarine cable to Cape Breton Island. Field arranged for the completion of this project and then turned his attention to the Atlantic cable. The first attempt was completed in 1858 with the cable from Ireland landing at Bay Bulls' Arm at the head of Trinity Bay in Newfoundland. After a short period of operation, the cable failed.

Pamphlet

PAC, Library, Pamphlet Collection, 1856/12.

67. "Laying the shore end of the Atlantic cable from the *Great Eastern*, in Heart's Content Bay, Newfoundland." *Illustrated London News*, 8 September 1866, p. 228.

Photocopy

PAC, National Photograph Collection, C-591.

68. "Landing the Atlantic cable in Heart's Content Bay, Newfoundland." *Illustrated London News*, 8 September 1866, p. 229.

Photocopy

PAC, National Photograph Collection, C-66507.

69. "From Europe. News by the Atlantic Cable...." *Toronto Globe*, 14 August 1866, p. 2.

The Atlantic cable reached Heart's Content, Newfoundland on 27 July 1866. At last, Canada had a direct telegraph link with Europe. The press was quick to make use of the great communication achievement, as indicated in the *Toronto Globe*, 14 August 1866.

Newspaper

National Library of Canada, Newspaper Section.

70. *New map shewing the line of the electric cable and other short lines of communication between the continents of Europe and America* [1866].

This map commemorates the first messages transmitted electrically between Europe and America.

Map; print: 27.4 x 56.6 cm.; [1:10,000,000]

PAC, National Map Collection, 1-3000-[1866].

PACIFIC CABLE

71. Letter from Sir Sandford Fleming, Engineer in Chief of the Canadian Pacific Railway, to F.N. Gisborne, Superintendent of the Telegraph and Signal Service, 11 June 1879.

An outline of the Pacific cable scheme.

Manuscript

PAC, Fleming Papers, MG29 A8, Vol. 65, pp. 40-42.

72. Sandford Fleming, C.M.G., 1895.

Photograph

PAC, National Photograph Collection, C-14128.

73. Letter from Sir Sandford Fleming to Sir John A. Macdonald, 6 July 1880.

A request by Fleming to have Macdonald ask the British government for landing privileges in Japan for the Pacific cable.

Manuscript

PAC, Macdonald Papers, MG26 A, Vol. 308, pp. 140245-48.

74. Map showing Sandford Fleming's proposed route for the Pacific cable, 1879.

Fleming sent this map with his first proposal for a Pacific cable to Sir John A. Macdonald in 1879. When more information about the ocean floor was available to Fleming, he abandoned this route in favour of a more direct route to Australia via Fanning Island.

Map; coloured print: 32.0 x 64.3 cm.

PAC, National Map Collection, 10,000-[1879].

75. *Map showing the geographical position of the Canadian Pacific Railway Telegraph in relation to the submarine electric telegraphs between Asia, Australia, America and Europe ... 1880.*

In the mid-1880's Sandford Fleming began thinking of a direct route to Australia instead of the northerly route he had first suggested. The manuscript features on this map, which were probably added by Fleming himself, depict this new route for the Pacific cable. Also shown is the logical extension of the Pacific cable, the "all-red" imperial cable circling the globe.

Map; coloured print with manuscript features: 28.0 x 63.7 cm.

PAC, National Map Collection, 10,000 - 1880.

76. Telegram from Hon. Sir Hector-Louis Langevin, Minister of Public Works, to Sir Charles Tupper, Canadian High Commissioner in London, 7 June 1886.

Authorization for Tupper to confer with Colonial Office about the Pacific cable.

Public record

PAC, Department of External Affairs, Canada House Records, RG25, A7, Vol. 459, file 67.

77. *All Red Route "Via Pacific".* London, Pacific Cable Board, 1924. 23 pp.

Pamphlet

Public record

PAC, Post Office Department Records, RG3, 13, Vol. 67, file 21-5-8.

78. Laying of the Pacific cable. Landing the cable at Doubtless Bay, New Zealand, 1902.

Photograph

PAC, National Photograph Collection, PA-37138.

79. *Carte générale des grandes communications télégraphiques du monde dressée d'après des documents officiels par le Bureau international des Administrations télégraphiques... 1900.*

The manuscript features include the correct route of the Pacific cable. Also of note is the great concentration of cable landings in Newfoundland and Nova Scotia illustrated in the inset.

Map; coloured print with manuscript features: 38.9 x 59.2 cm.

PAC, National Map Collection, 10,000 - 1900.

III THE TELEPHONE

Canadians are among the greatest users of the telephone in the world. In 1874 Alexander Graham Bell conceived the basic theory of telephony at his home in Brantford, Ontario. The inventor's father, Alexander Melville Bell, who was assigned the majority of Canadian rights to the telephone patent, was responsible for making the telephone a commercial reality in Canada. The Bell Telephone Company, incorporated in 1880, initiated the development of telephone systems in all provinces except British Columbia. Today, however, there are federal, provincial, municipal, private and other companies, the largest by far being Bell Canada. In 1931, the major telephone companies formed the Trans-Canada Telephone System to provide a complete network from coast to coast. This co-operative venture still co-ordinates nation-wide services.

Throughout the years there have been constant and innovative improvements to telephone components, switching apparatus and transmission facilities in the telephone industry. Unlike the telegraph which necessitated trained operators, the telephone personalized communications, and encouraged dialogue in every avenue of human endeavour. It is hard to visualize a modern society without the telephone.

80. Messrs. McIntyre, A.G. Bell and Brooks, builders of the first telephone line in Canada at Brantford, Ontario in 1876. This picture was taken at a reunion in Brantford in 1906.

Photograph

Bell Canada, Telephone Historical Collection, no. 2023.

81. Official programme for the exhibition of the City of Ottawa Agricultural Society, 11-13 September 1877.

Included in the programme is the announcement of an exhibition of "The Speaking Telephone" - the invention of Professor Alexander Graham Bell - at intervals during both Wednesday and Thursday, September 12th and 13th.

Manuscript

Bell Canada, Telephone Historical Collection, no. 1288.

82. Commercial telephone lease.

Canada's first telephones for commercial use were leased in 1877 to Prime Minister Alexander Mackenzie by Professor Alexander Melville Bell, father of the inventor. The instruments were used in Ottawa on a line from the Department of Public Works, of which Mackenzie

was Minister, to the residence of the Governor General, Lord Dufferin.

Manuscript

Bell Canada, Telephone Historical Collection, no. 638.

83. Letter from J.R. Arnoldi, mechanical engineer of the Department of Public Works, to F. Braun, secretary of the department, 10 June 1879.

The letter mentions the original Bell telephones installed in 1877 between Rideau Hall and the West Block, Parliament Hill and asks that they be removed and replaced by Edison transmitters and call boxes and Phelps receivers.

Public record

PAC, Department of Public Works Records, RG11, IX, Vol. 214, file 1880-4.

84. Hamilton's first telephone exchange.

Painting (by J.C.H. Forster) of Hamilton's first telephone exchange opened by the Hamilton District Telegraph Company in 1878. Shown are T.H. Wadland, Manager (at roll-top desk), H.C. Baker, founder and President (standing near switchboard) and K.J. Dunstan (at the switchboard).

Photograph

Bell Canada, Telephone Historical Collection, no. 18088.

85. Direct telephone lines.

The first list of the first telephone exchange in the British Empire opened in Hamilton, Ontario on 15 July 1878, by the District Telegraph Company of Hamilton under licence from Professor A.M. Bell, father of the inventor.

Manuscript

Bell Canada, Telephone Historical Collection, no. DF 910.

86. Demonstration of telephone to the press in 1879, in first telephone exchange of the Dominion Telegraph Co. on St. François Xavier Street. *Canadian Illustrated News*, 20 December 1879.

In 1880 this became the first Bell Telephone Company exchange in Montreal.

Photograph

Bell Canada, Telephone Historical Collection, no. 642.

87. Duquet telephone.

Cyrille Duquet invented one of the world's first combined hand-sets. Patented on 1 February 1878.

Artifact

Bell Canada, Telephone Historical Collection.

88. Canada. Patent of invention.... Cyrille Duquet... Quebec... improvements on telephone.... 1 February 1878.

Manuscript

Bell Canada, Telephone Historical Collection, no. 21732.

89. Advertisement for "The Bell Telephone Co. of Canada. Messenger Service Dept." From *Eastern Exchange Directory*, December 1885.

Manuscript

Bell Canada, Telephone Historical Collection.

90. "Just what is wanted, what? A public telephone office." *Montreal Gazette*, 5 October 1881.

Newspaper

National Library of Canada, Newspaper Section.

91. *The Bell Telephone Co. of Canada...Subscribers' Directory.* Montreal, August 1887. 118 pp.

Pamphlet

Bell Canada, Telephone Historical Collection.
92. Letter from Annie Thompson, Halifax, to her husband Hon. John S. D. Thompson, Attorney General of Nova Scotia, 23 October 1881.

Manuscript

PAC, Thompson Papers, MG26 D, Vol. 283, pp. 31-34.
93. Laying of the first international submarine telephone connection in the world between Windsor, Ontario and Detroit, Michigan, 11 July 1881.

Photograph

Bell Canada, Telephone Historical Collection, no. 4330.
94. *Bell Telephone Co. - Ontario Department. Rate and route map for connecting lines* [1885].

Map; print: 46.5 x 71.5 cm.; 1:950,400

Bell Canada, Telephone Historical Collection, no. 959.
95. Bell Canada crew erecting a 60 foot pole in Toronto near the corner of King and Dufferin Streets, 1895.

Photograph

Bell Canada, Telephone Historical Collection, no. 3152.
96. "The telephone booming." *Canadian Illustrated News*, 24 January 1889.

Cartoon

Bell Canada, Telephone Historical Collection, no. 31280.

97. Letter from H.C. Baker, Bell Telephone Co., Ontario Department, to Charles F. Sise, Vice-President of the Bell Telephone Company of Canada, 30 March 1885.

An acknowledgement to a telegram directing agents to continue paying salaries of employees serving in the Northwest Rebellion.

Manuscript

Bell Canada, Telephone Historical Collection, Northwest Rebellion file.

98. D. Brennan and Bell Canada crew opening trench for cable on Main Street in Winnipeg, Manitoba in 1903.

Photograph

Bell Canada, Telephone Historical Collection, no. 4478.

99. Bell Canada foreman Dan Brennan, Pat Keyes and Joe Hughes laying 1200 - pair cable, Montreal, 1922.

Photograph

Bell Canada, Telephone Historical Collection, no. 5956.

100. Letter from the Governor General, the Marquis of Lansdowne, Cascapédia, Quebec, to Hon. Sir Hector Langevin, Minister of Public Works, Ottawa, 13 June 1886.

This letter from Cascapédia on the Baie des Chaleurs was an early example of the benefits of long distance telephone service.

Manuscript

PAC, Langevin Papers, MG27 I D11, Vol. 2, pp. 51-52.

101. Bell Canada motor vehicle No. 1, April 1909.

Manufactured in Orillia for use in London, Ontario. This car was returned to Orillia for repairs, but the factory burned down in July 1909 and the car was destroyed.

Photograph

Bell Canada, Telephone Historical Collection, no. 3153-6.

102. Mr. E.L.B. Joseph operating telephone exchange in Dr. Riddell's drug-store, Lauder, Manitoba, ca. 1914-1918.

Photograph

PAC, National Photograph Collection, PA-70872.

103. Portable telephone used for forest fire protection in Riding Mountain Forest Reserve, Manitoba.

Photograph

PAC, National Photograph Collection, PA-41477.

104. Putting up government telephone lines through the rural district.

Photograph

PAC, National Photograph Collection, C-5128.

105. *Telephones: Ontario and Quebec. No. 15, Atlas of Canada [1906].*

This map is from the 1906 Department of the Interior *Atlas of Canada*.

Map; coloured print: 27.8 x 41.0 cm.

PAC, National Map Collection.

106. *Telephones: Manitoba, Saskatchewan, Alberta, British Columbia & Yukon. No. 16, Atlas of Canada [1906].*

This map is from the 1906 Department of the Interior *Atlas of Canada*.

Map; coloured print: 28.3 x 41.0 cm.

PAC, National Map Collection.

107. Bell Canada Adelaide exchange, Toronto, 1 December 1921.

Photograph

Bell Canada, Telephone Historical Collection, no. 4428.

108. *When Montreal spoke to Vancouver.* 1916. 4 pp.

Opening of long distance telephone across the Dominion of Canada.

Pamphlet

Bell Canada, Telephone Historical Collection, no. 3351.

109. Pat Collins, train director, CPR, Windsor Station interlocking tower, 1926.

Photograph

PAC, National Photograph Collection, PA-48385.

110. Telephone handset used to inaugurate the world's first two-way telephone service from a moving train.

William D. Robb, Sr., Vice-President of Canadian National Railways, was responsible for the introduction of the train telephone service in 1930.

Artifact

Loaned to Public Archives Canada by William D. Robb, Jr., Montreal.

111. Letter from L. Marsolieu, Vicar, Caraquet, New Brunswick to Hon. Hugh Alexander Stewart, Minister of Public Works, 8 July 1931.

A request for telephone service between Middle Caraquet and St. Simon, New Brunswick.

The Canadian Government Telephone and Telegraph Service, formerly the Telegraph and Signal Service, concentrated on the provision of telegraph and telephone services to remote and sparsely populated sections of the country.

Public record

PAC, Department of Public Works Records, RG11, IX, Vol. 227, file 3162-21.

112. "His Excellency the Governor-General officially opens all-Canadian Halifax - Vancouver telephone circuit today." *Montreal Herald*, 25 January 1932, p. 1.

Newspaper

National Library of Canada, Newspaper Section.

113. "Sky Riding" lineman of the British Columbia Telephone Company stringing telephone circuits for the Trans-Canada Telephone System across Rock Creek Canyon, British Columbia, ca. 1930.

Photograph

Bell Canada, Telephone Historical Collection, no. 24730.

114. "First Canadian mobile phone will aid in faster news coverage." Toronto *Globe and Mail*, 17 July 1947, p. 13.

Newspaper

National Library of Canada, Newspaper Section.

115. Interior of J.B.M. St. Laurent Store, Compton, Quebec.

Sitting at desk is Maurice St. Laurent; standing is his son Marc.

Photograph

PAC, National Photograph Collection, C-10191.

IV WIRELESS TELEGRAPHY

The practical application of wireless telegraphy was another step in man's efforts to bridge time and space. The Canadian government was quick to realize the advantages of wireless for use at sea, for servicing remote and sparsely settled areas and for trans-Atlantic communications. As early as May 1901, the Canadian government decided to install two wireless stations on the Straits of Belle Isle.

116. Talk on Guglielmo Marconi by A.H. Ginman, President of the Canadian Marconi Company, made during a special radio programme broadcast by the CBC on 25 April 1938, on the 64th anniversary of Marconi's birth. Recorded by radio station CBM, Montreal.

English tape: 2:30 min.

PAC, National Film Archives, Historical Sound Recordings Section.

117. Letter from Alexander Graham Bell to Hon. Sir Louis Davies, Minister of Marine and Fisheries, 30 September 1899.

Bell recommends the Marconi system of wireless telegraphy for Sable Island.

Public record

PAC, Department of Transport Records, RG12, Vol. 1703, file 7282-226.

118. Memorandum by Governor General Lord Minto, 7 January 1901.

Minto describes his conversation with Marconi regarding the wireless and terms by which Canadian aid might be secured.

Manuscript

PAC, Minto Papers, MG27 II, B1, Vol. 4, pp. 18-20.

119. Guglielmo Marconi and associates at the Cabot Tower on Signal Hill, St. John's, Newfoundland, December 1901.

From left to right are G.S. Kemp, G. Marconi and P.W. Paget.

Photograph

PAC, National Photograph Collection, C-5941.

120. Raising the Marconi kite, Signal Hill, St. John's, Newfoundland, to receive the first wireless transmission across the Atlantic.

Photograph

PAC, National Photograph Collection, C-5943.

121. Excerpt from the diary of G.S. Kemp which records that, on 12 December 1901, the sound of "S" in Morse code, transmitted by Poldhu Station in Cornwall, England, was received at Signal Hill, St. John's, Newfoundland.

Manuscript

Canadian Marconi Company, Glace Bay Museum Collection.

122. Minutes of the regular meeting of the Saint John's Municipal Council, 20 December 1901.

Marconi was forced to leave Newfoundland by the companies that had a monopoly on extra-territorial communications. He relocated in Cape Breton, Nova Scotia with the support of the Canadian government.

Manuscript

Canadian Marconi Company, Glace Bay Museum Collection.

123. Memorandum of agreement made between Marconi's Wireless Telegraph Company Limited... and the Government of Canada, 17 March 1902.

The two parties agree to erect two wireless stations, one in some part of the United Kingdom of Great Britain and Ireland, and the other in some part of Nova Scotia. The agreement is signed by Marconi and Sir Wilfrid Laurier.

Manuscript

PAC, Privy Council Office Records, RG2, 3, Vol. 145, Dormant Order in Council no. 452.

124. Wireless station constructed by the Canadian Marconi Company at Table Head, Glace Bay, Nova Scotia in 1902.

This station formed the first permanent trans-Atlantic radio link with Europe via Clifden, Ireland. In 1905, this station was moved to a larger site at Morien, Glace Bay.

Photograph

Canadian Marconi Company, Glace Bay Museum Collection.

125. Telegram from Guglielmo Marconi to Sir Wilfrid Laurier,
21 December 1902.

The first official messages from the permanent wireless station at Glace Bay were sent by Marconi, 20 December 1902, to the Kings of Great Britain and Italy.

Manuscript

PAC, Laurier Papers, MG26 G, Vol. 246, pp. 68586-88.

126. "Befogged! Before the days of wireless Direction-finders."
Canadian Wireless, February 1922 (Vol. 1, no. 9), p. 6.

Cartoon

PAC, Library.

127. Letter from Hugh A. Allan of the Allan Line of Royal Mail Steamships to Hon. L.-P. Brodeur, Minister of Marine and Fisheries, 7 July 1906.

The letter gives a practical illustration of the value of the Marconi system while navigating the straits and Gulf of the St. Lawrence River.

Public record

PAC, Department of Transport Records, RG12, Vol. 1631, file 6800-31, part 1.

128. Letter from Wilfrid Bourque, the lighthouse keeper at Birds Rock, Magdalen Islands, to Hon. L.-P. Brodeur, Minister of Marine and Fisheries, 8 October 1906.

For many, wireless telegraphy was one means of overcoming the hardships of isolation in the remote areas of Canada.

Public record

PAC, Department of Transport Records, RG12, Vol. 1418, file 6801-126, part 1.

129. Letter from Sir Edward P. Morris, Prime Minister of Newfoundland, to Hon. L.-P. Brodeur, Minister of Marine and Fisheries, 14 October 1909.

A request that the Marconi station at Belle Isle be kept open all winter to assist the Newfoundland fishermen and sealers.

Public record

PAC, Department of Transport, RG12, Vol. 1418, file 6801-115, part 1.

130. The receiving room of Marconi wireless telegraph station, Table Head, Glace Bay, Nova Scotia, 17 October 1907.

On 17 October 1907, the first commercial press message passed between Glace Bay and Clifden, Ireland. Marconi is at left while James Holmes is at right.

Photograph

Canadian Marconi Company Collection

PAC, National Photograph Collection, PA-95413.

131. Letter from John McDougall, Commissioner of Customs, to Hon. L.-P. Brodeur, Minister of Marine and Fisheries, 26 November 1909.

A request urging that a wireless station be established at Alert Bay, British Columbia, and that the Fisheries protective cruisers patrolling the west coast be equipped with wireless.

Public record

PAC, Fisheries Branch Records, RG23, Vol. 381, file 3421.

132. *Chart of radio-telegraph stations on the Pacific coast [1912].*

Map; coloured print: 40.2 x 52.3 cm.; [1:2,000,000]

PAC, National Map Collection, 1100-[1912].

133. View of radio station from fir tree mast, Alert Bay, British Columbia, 1927.

Photographed by radio operator, Robson.

PAC, National Photograph Collection, C-67434.

134. Conversion of a fir tree into a 140 foot-high radio mast, Alert Bay, British Columbia, 1927.

Photograph

PAC, National Photograph Collection, C-67432.

135. Lighthouse and wireless station, Triangle Island, British Columbia, ca. 1920.

Photograph

PAC, National Photograph Collection, C-55508.

136. Letter from W.-L. Gauthier, M.P. for the Gaspé region, to Hon. L.-P. Pelletier, Postmaster General, 15 January 1912.

Letter from the Quebec *Chronicle* to Hector-B. Verret, Assistant Deputy Postmaster, 31 January 1912.

Telegram from Hon. L.-P. Pelletier, Postmaster General, to the manager, Marconi Telegraph Company, Montreal.

Gauthier requested that a weekly newsletter be transmitted by wireless telegraphy to the Magdalen Islands. The weekly synopsis of current events was prepared by the Quebec *Chronicle* and inaugurated 20 February 1912, and read from the pulpit on Sundays at House Harbour, Amherst, Etang-du-Nord and Grindstone.

Public record

PAC, Post Office Department, RG3, 10, Vol. 17, file 52747.

137. Amherst, Magdalen Islands, Quebec, ca. 1900-1910.

Photograph

PAC, National Photograph Collection, PA-34034.

138. *Chart of radio-telegraph stations on the east coast* [1912].

The radiotelegraph made possible the rescue of many endangered vessels and lives.

Map; coloured print: 40.1 x 51.0 cm.; [1:3,952,000]

PAC, National Map Collection, 1100-[1912].

139. The SS *Victorian* of the Allan Line, 1905.

This ship was furnished with radiotelegraph apparatus made obligatory by the Radiotelegraph Act of 1913.

Photograph

PAC, National Photograph Collection, C-53925.

140. The SS *Florizel* at the seal fishery off the coast of Newfoundland, 1914.

Photograph

Canadian Marconi Company Collection

PAC, National Photograph Collection, C-65135.

141. The SS *Bonaventure*, SS *Stephano*, SS *Newfoundland* and SS *Florizel*, steaming through heavy field ice at the seal fishery off the coast of Newfoundland, 1914.

Photograph

Canadian Marconi Company Collection

PAC, National Photograph Collection, C-65136.

142. "Awful disaster on the icefields." St. John's *Evening Telegram*, 2 April 1914, p. 4.

Many sealers from the SS *Newfoundland* were trapped on the ice during a blizzard. Messages were received from the wireless of other sealing vessels as the SS *Newfoundland* was not equipped with wireless.

Newspaper

National Library of Canada, Newspaper Section.

143. Marconi staff dwelling at Cape Race, Newfoundland.

The telegraph station was behind the house. Cape Race was the first station to receive the distress signals from the *Titanic*.

Photograph

Canadian Marconi Company Collection

PAC, National Photograph Collection, C-65137.

144. *Telegraph chart of the Gulf and Lower St. Lawrence and Maritime Provinces ... Jan. 1917.*

Comparison with the 1879 map vividly documents the evolution of navigational aids in Canada's coastal waters. Close examination reveals the great multiplicity of telecommunication techniques used in navigation.

Map; coloured print: 58.9 x 70.3 cm.; 1:2,100,000

PAC, National Map Collection, 1102-1917.

145. Inside the Marconi station at Port Arthur, Ontario.

Port Arthur was one of four Great Lake radiotelegraph stations constructed by the Marconi Company under the terms of the agreement of 17 September 1912, between the Canadian government and the Canadian Marconi Company.

Photograph

Canadian Marconi Company Collection

PAC, National Photograph Collection, C-65134.

V THE STIMULUS OF WAR, 1914-1918

Signalling in the First World War was a complex mixture of old and new methods. Flags, pigeons and lamps were gradually but never totally replaced by telegraphy, telephony and wireless. Of particular importance to Canadians were the technical advances in radiotelephony and the emergence of the Royal Canadian Corps of Signals as specialists in the new age of wireless. After the war, this skilled corps of communication specialists provided invaluable service in the development of the North.

146. Trainees practising with signal flags, Canadian Signal Training Depot, Witley, England, ca. 1918.

Photograph

PAC, National Photograph Collection, PA-5523.

147. "His Majesty's Pigeon Service." Personnel of the Canadian Signal Corps releasing a pigeon from the trenches, France, May 1917.

Photograph

PAC, National Photograph Collection, PA-1454.

148. Mobile pigeon loft used by the Canadian Signal Corps, France, November 1917.

Photograph

PAC, National Photograph Collection, PA-2071.

149. Canadian officer outside dugout with pet goat and messenger dog, France, August 1916.

Photograph

PAC, National Photograph Collection, PA-442.

150. Signals personnel of the 28th Battalion using a Popham panel to communicate with aircraft of the Royal Flying Corps, Vimy Ridge, France, April 1917.

Photograph

PAC, National Photograph Collection, PA-1096.

151. Personnel of the Canadian Signal Corps laying cable during the major Allied offensive east of Arras, France, September 1918.

 Photograph

 PAC, National Photograph Collection, PA-3080.
152. Makeshift telephone line strung from captured German rifle at Canadian outpost east of Arras, France, August 1918.

 Photograph

 PAC, National Photograph Collection, PA-40214.
153. Telephone testing station of the Canadian Signal Corps, France, May 1917.

 Photograph

 PAC, National Photograph Collection, PA-1282.
154. Personnel of a telephone testing station of the Canadian Signal Corps, France, October 1916.

 Photograph

 PAC, National Photograph Collection, PA-740.
155. Operations room, Canadian Corps Headquarters, France, 16 May 1917.

 Photograph

 Royal Canadian Corps of Signals Museum Collection

 PAC, National Photograph Collection, C-64009.
156. Text of wireless message announcing armistice to units of the 5th Canadian Division, France, 11 November 1918.

 Photograph

 Royal Canadian Corps of Signals Museum Collection

 PAC, National Photograph Collection, PA-92377.

VI WIRELESS TELEGRAPHY MOVES NORTH

Following the First World War, Canada became interested in opening up the Yukon and Northwest Territories. This vast and sparsely populated region was dependent for communications on river transport, dog teams and infrequent coastal vessels. The cost of other conventional communication systems such as a telegraph to the North would have been totally prohibitive. Consequently, it was left to the Department of National Defence or specifically the Royal Canadian Corps of Signals to provide the major radio system for government agencies, traders, miners, bush pilots, the Royal Canadian Mounted Police, and the Indians and Eskimos of the North.

The Northwest Territories and Yukon Radio System also transmitted important meteorological readings which resulted in long-range weather predictions, saving millions of dollars for agricultural and shipping interests, both in Canada and the United States. In 1957, what remained of the system was transferred to the Department of Transport.

157. S/L R.A. Logan with Tuktu and his family displaying the Canadian Air Force Ensign during the voyage of CGS *Arctic*, Craig Harbour, Northwest Territories, 27 August 1922.

Photograph

Canadian Forces Photo Unit Collection, RE-13996.

158. Personnel of the Canadian Corps of Signals in training, Camp Borden, Ontario, ca. 1922.

Photograph

PAC, National Photograph Collection, PA-92379.

159. Canadian Air Board station, High River, Alberta, 22 June 1922.

Visible at night is the wireless mast.

Photograph

PAC, National Photograph Collection, PA-52140.

160. Wireless-equipped D.H. 4 aircraft of the Canadian Air Board in flight near High River, Alberta, 10 July 1922.

Photograph

PAC, National Photograph Collection, C-36268.

161. *A History of the Northwest Territories and Yukon Radio System (1923 to 1960)*, as prepared under the direction of the commanding officer, Northwest Territories and Yukon Radio System, RCCS. Edmonton, Alberta, June 1960. 61 pp.

Pamphlet

Royal Canadian Corps of Signals Museum, Vimy Barracks, Kingston.

162. *They broke the Arctic silence* [1925]. In Wood, H.F. "They broke the Arctic silence." *Canadian Geographical Journal*, 1962 (Vol. 64, no. 1), p. 23.

This map depicts early radio communication in the Canadian North.

Map; photograph: 20.0 x 25.0 cm.; 1:4,000,000

PAC, Library.

163. Telegram from Hon. Charles Stewart, Minister of the Interior, Ottawa, to Percy Reid, Acting Gold Commissioner, Dawson, Yukon Territory, 5 December 1924.

Public record

PAC, Yukon Territorial Records, RG91, Vol. 56, file 33825.

164. SS *Distributor* during the voyage of His Excellency Baron Byng of Vimy, Governor General of Canada, down the Mackenzie River, Northwest Territories, 1925.

Photograph

PAC, National Photograph Collection, PA-92343.

165. Wireless operator of the Canadian Corps of Signals aboard SS *Montevideo* during the voyage of His Excellency Baron Byng of Vimy, Governor General of Canada, down the Mackenzie River, Northwest Territories, 1925.

Photograph

PAC, National Photograph Collection, PA-92363.

166. The land of the midnight sun, Mayo, Yukon Territory, ca. 1923.

Conveys the remoteness of the northern communities where radio-telegraphy was the only modern form of communication with the rest of Canada.

Photograph

PAC, National Photograph Collection, C-64904.

167. Canadian Corps of Signals station, Mayo, Yukon Territory, 1924.

Photograph

PAC, National Photograph Collection, C-64890.

168. Aklavik, Northwest Territories, 1925.

Photograph

PAC, National Photograph Collection, C-61714.

169. Major W.A. Steel and Lieut. H.A. Young of the Canadian Corps of Signals, Aklavik, Northwest Territories, August 1925.

Photograph

PAC, National Photograph Collection, PA-92364.

170. Indian camp, Fort Simpson, Northwest Territories, July 1925.

Photograph

PAC, National Photograph Collection, PA-92339.

171. Indian chiefs holding meeting at the Canadian Corps of Signals station, Fort Resolution, Northwest Territories, July 1925.

Photograph

PAC, National Photograph Collection, PA-92346.

172. Royal Canadian Corps of Signals. *Monthly Bulletin*, March 1933 (Vol. 9, no. 3), pp. 10-11.

A complete set of the invaluable station reports, 1923-1939, are located at the RCCS Museum in Kingston, Ontario.

Pamphlet

Royal Canadian Corps of Signals Museum, Vimy Barracks, Kingston.

173. Wireless - equipped Fokker "Universal" aircraft of the Hudson Strait Expedition, Nottingham Island, Northwest Territories, 18 May 1928.

Photograph

Canadian Forces Photo Unit Collection

PAC, National Photograph Collection, RE-13880.

174. Group of Eskimos, Nottingham Island, Northwest Territories, ca. 1928.

Photograph

PAC, National Photograph Collection, PA-92366.

175. Wireless operator of the Canadian Corps of Signals attached to the Hudson Strait Expedition, 1928.

Photograph

PAC, National Photograph Collection, PA-92367.

176. The Royal Canadian Mounted Police patrol vessel *St. Roch* wintering at Cambridge Bay, Northwest Territories, 20 March 1946.

Communications from ship was by wireless telegraphy.

Photograph

PAC, National Photograph Collection, Z-4530-2.

VII RADIO

Canadians have had close connections with the radio from its inception. Marconi received his first trans-Atlantic radiotelegraphy signals in St. John's, Newfoundland in 1901 and later selected Nova Scotia as the site for his first North American trans-Atlantic radio station. Reginald Aubrey Fessenden, a Canadian resident in the United States, was one of the greatest pioneers in radiotelephony. Although he transmitted the world's first radio broadcast in 1906, this and his other achievements have had little recognition.

The history of Canadian broadcasting is filled with controversy, many believing that for years the government did too little too late. After the epoch-making success of the Diamond Jubilee Broadcast in 1927, the demand for public ownership and control of broadcasting increased. Through the Canadian Radio Broadcasting Commission (CRBC) and later the Canadian Broadcasting Corporation (CBC), the government has tried to meet the bilingual, multicultural and socio-economic diversities of Canadian society. Despite its difficult and contentious development, perhaps radio broadcasting has done more to foster national identity than any invention prior to the advent of television.

EARLY RADIO BROADCASTING

177. Reginald A. Fessenden, a Canadian inventor of the wireless telephone.

He transmitted by radio the first broadcast of voice and music in the world on Christmas Eve 1906, from the Brant Rock Station, Massachusetts to ships in the Atlantic Ocean as far south as Guantanamo Bay. He was also the first to make two-way contact by wireless telegraphy across the Atlantic in 1906, between Brant Rock and Machrihanish, Scotland.

Photograph

PAC, National Photograph Collection, PA-93160.

178. Fessenden's experimental station at Brant Rock, Massachusetts, 1905-1906.

The Edison phonograph used in the first broadcast is on the bench to the left of the picture.

Photograph

State Archives of North Carolina, Raleigh, North Carolina.

179. J.V. Argyle and J.O. Cann conduct the first radio broadcast in Canada at the Marconi factory, station XWA, William Street, Montreal, 1919.

Station XWA became station CFCF on 4 December 1920. The programmes were mainly weather reports and the playing of gramophone records on a wind-up Victrola.

Photograph

PAC, National Photograph Collection, PA-93101.

180. Apprenticeship agreement of Leonard Spencer and his father with the Marconi Wireless Telegraph Company of Canada for the trade of wireless engineer. The agreement was made on 1 July 1919 and was completed on 31 May 1923.

Spencer was the engineer at stations XWA (CFCF), and later CKAC. He retired from CKAC in 1968 after 46 years service with the station.

Manuscript

PAC, Spencer Papers, MG30 A39.

181. Jack Dempsey, world heavyweight boxing champion, being interviewed on CFCF in 1922.

Left to right are Frederic Yorston, Editor of the Montreal *Standard*, Jack Dempsey, Dempsey's Manager, and Walter Darling, Manager and announcer of CFCF.

Photograph

Canadian Marconi Collection

PAC, National Photograph Collection, C-66695.

182. Composite photograph showing personnel, studios and equipment of station CKAC, Montreal, 11 October 1924.

Station CKAC was Canada's first French language station and one of the oldest radio stations in the world.

Photograph

Montreal *La Presse*

PAC, National Photograph Collection, C-64057.

183. "Les résultats de l'élection d'hier transmis par le poste C.K.A.C. sont entendus par toute l'Amérique." Montreal *La Presse*, 30 October 1925.

Description and artist's conception of the transmission of the election by station CKAC.

Newspaper

National Library of Canada, Newspaper Section.

184. *Radio map of Canada and the United States ... 1922.*

This map depicts radio broadcasting in North America in its earliest days.

Map; coloured print: 40.0 x 50.8 cm. on sheet 85.0 x 55.5 cm.; 1:10,500,000

PAC, National Map Collection, 1000-1922.

185. Letter from J.R. Bone, Managing Editor of the Toronto *Star*, to C.J. Desbarats, Deputy Minister of the Department of the Naval Service, 23 March 1922.

An application for a public commercial licence for broadcasting.

Public record

PAC, Department of Transport Records, RG12, Vol. 862, file 6206-148, part 1.

- * Application form of the Department of Marine and Fisheries, Radio Branch, for a licence to install and operate a radio station in Canada from the First Congregational Church, Vancouver, 14 August 1924.

An example of the early use of broadcasting by religious institutions.

Public record

PAC, Department of Transport Records, RG12, Vol. 605, file 6206-144.

186. Checker games by radio were given a trial by station CKY, Winnipeg, 1926.

CKY was the first publicly owned radio station in Canada. Owned by the Province of Manitoba and operated by the Manitoba Telephone System, it opened on 13 March 1923.

Photograph

Canadian Marconi Collection

PAC, National Photograph Collection, C-66703.

187. Report from Cst. E. Anstead, in charge of the Dundas Harbour Detachment, Northwest Territories, to the officer commanding, RCMP, Ottawa, 30 June 1926.

Report on early radio reception in the eastern Arctic.

Public record

PAC, Department of Transport Records, RG12, Vol. 1112, file 6800-11, part 2.

188. Radio-equipped parlour observation car, Canadian National Railways, 1929.

In 1924, the CNR began a train radio service to attract passengers. This service was discontinued in 1931.

Photograph

Department of the Interior Collection

PAC, National Photograph Collection, C-26000.

189. Messrs. Vic George and Herb Roberts providing the sound effects for the "Romance of Canada" series, Montreal, January 1931.

This series of epic stories from early Canadian history was just one of the many CNR sponsored contributions to radio development in Canada. The CNR had the first radio network in Canada. Its first transcontinental broadcast was in September 1928.

Photograph

PAC, National Photograph Collection, PA-92386.

190. "The Four Porters" at station CNRV, Vancouver, ca. 1930.
Photograph
PAC, National Photograph Collection, C-66621.
191. Programmes of the CNR radio network, June 1928 and July 1929.
Manuscript
PAC, Weir Papers, MG30 D64, Vol. 5.
192. The "Musical Crusaders", a radio broadcast feature sponsored by the Canadian Pacific Railway, 1930.
Pamphlet
PAC, Weir Papers, MG30 D64, Vol. 28, file CPR.
193. Westinghouse "Aerola Sr." regenerative radio receiver with "Brandes" headphones. This set sold for \$75 in Canada in the early 1920's, ca. 1924.
Artifact
National Museum of Science and Technology, Ottawa.
194. *Layout of Canadian Broadcasting Network. Jubilee of Confederation, July 1st, 1927.*
This map describes how Canada's first live coast-to-coast radio broadcast was accomplished.
Map; hand coloured print: 41.3 x 138.8 cm.; [1:4,500,000]
PAC, National Map Collection, 1100-1927.
195. *Canada. Confederation, 1867-1927. Ottawa Programme.* 15 pp.
Diamond Jubilee of Confederation.
Pamphlet
PAC, Library.

196. Rt. Hon. W.L. Mackenzie King speaking during the Diamond Jubilee National Broadcast, Parliament Hill, Ottawa, Ontario, 1 July 1927.

Photograph

PAC, National Photograph Collection, PA-27563.

197. Letter from Rt. Hon. W.L. Mackenzie King, Prime Minister of Canada, to T. Ahearn, Chairman of the Diamond Jubilee Broadcast Committee, 9 July 1927.

The Diamond Jubilee Broadcast was a great event of national importance. It was accomplished by the united efforts of many radio, telegraph and telephone systems in Canada. In addition it was broadcast to Great Britain by Marconi beam from Drummondville, Quebec. In his letter, King congratulates Ahearn on the success of the broadcast.

Manuscript

PAC, King Papers, MG26 J1, Vol. 140, pp. 119588-89.

- f198. Extract of a speech by His Excellency Lord Willingdon, Governor General of Canada, singing of "Vive la Canadienne" by a choir of schoolchildren, and the playing of "O Canada" by the Carillon on Parliament Hill, on the occasion of the Diamond Jubilee of Confederation, 1 July 1927. This was the first transcontinental network for a Canadian radio broadcast. Recorded by the Compo Company of Lachine, Quebec.

French tape: 2:45 min.

PAC, National Film Archives, Historical Sound Recordings Section.

199. Extracts of commentary by a CRBC announcer and of the speeches of Hon. Adélard Godbout, Premier of Quebec, and Franklin D. Roosevelt, President of the United States of America, delivered on the occasion of President Roosevelt's visit to Quebec City, 31 July 1936. Broadcast by the Canadian Radio Broadcasting Corporation, and relayed to the United States. Recorded by Audio Scripts, New York.

French tape: 2:45 min.

PAC, National Film Archives, Historical Sound Recordings Section.

f Sound extracts 198-206 include items for both Early Radio Broadcasting and National Radio Broadcasting sections.

200. Extract of the radio programme *Y a du soleil*, with comedy and songs by Jacques Normand and Lise Roy, broadcast by radio station CKAC, Montreal, 21 October 1948. Recorded by CKAC.

French tape: 1:45 min.

PAC, National Film Archives, Historical Sound Recordings Section.

201. Extract of a speech by Hon. Maurice Duplessis, Premier of Quebec, at the state dinner held in Quebec City, 9 October 1951, on the occasion of the royal visit by Princess Elizabeth and the Duke of Edinburgh. The speeches were broadcast and recorded by the Canadian Broadcasting Corporation.

French tape: 2:45 min.

PAC, National Film Archives, Historical Sound Recordings Section.

202. Extract of speech by Rt. Hon. W.L. Mackenzie King, Prime Minister of Canada and Leader of the Liberal Party of Canada, delivered in the Montreal Forum, 19 October 1925, during the federal election campaign. This was the first commercial recording made in Canada of a Canadian radio broadcast. Recorded by the Compo Company of Lachine, Quebec. The lights were momentarily turned off during the course of the speech causing temporary confusion.

English tape: 4:00 min.

PAC, National Film Archives, Historical Sound Recordings Section.

203. Extracts of speeches by Hon. George P. Graham, Chairman of the Diamond Jubilee Executive Committee, His Excellency Lord Willingdon, Governor General of Canada, and Rt. Hon. W.L. Mackenzie King, Prime Minister of Canada, with extracts of "The Maple Leaf Forever" by a choir of school-children, and "O Canada" by the Carillon delivered on Parliament Hill on the occasion of the Diamond Jubilee of Confederation, 1 July 1927. This was the first transcontinental network for a Canadian radio broadcast. Recorded by the Compo Company of Lachine, Quebec.

English tape: 4:35 min.

PAC, National Film Archives, Historical Sound Recordings Section.

204. Extract of a speech by Rt. Hon. R.B. Bennett, Prime Minister of Canada, delivered before the annual meeting of the Canadian Manufacturer's Association in Montreal. Broadcast 8 June 1934 by the Canadian Radio Broadcasting Corporation.

English tape: 1:50 min.

PAC, National Film Archives, Historical Sound Recordings Section.

205. Extract of a speech by Hon. William Aberhart, Premier of Alberta, delivered during a Social Credit Party meeting held in Edmonton in 1937. Broadcast and recorded by radio stations in Alberta.

English tape: 1:30 min.

PAC, National Film Archives, Historical Sound Recordings Section.

206. Extracts of commentary by a CRBC reporter and of the speech of Franklin D. Roosevelt, President of the United States of America, delivered on the occasion of President Roosevelt's visit to Quebec City, 31 July 1936. Broadcast by the Canadian Radio Broadcasting Corporation, and relayed to the United States. Recorded by Audio Scriptions, New York.

English tape: 2:00 min.

PAC, National Film Archives, Historical Sound Recordings Section.

207. Canada, Department of Marine and Fisheries. Licence to use a radio from 1 April 1926 to 31 March 1927.

Issued to James Richardson & Sons Ltd. for station CJRM, Moose Jaw, Saskatchewan.

Manuscript

Richardson Archives, Winnipeg.

208. *"The Grain Belt Network"*. From *Concentration is ... Economy*. Winnipeg, James Richardson & Sons Ltd., 1934. 8 pp.

Arrangements were made by the Richardsons as early as 1923 to broadcast Grain Exchange news everyday. The first station of the above network, station CJGX, Yorkton, Saskatchewan, opened 27 August 1927. By 1928 the Grain Belt Network was in operation.

Pamphlet

Richardson Archives, Winnipeg.

209. *Radio Bulletin*. James Richardson & Sons Ltd., July-August 1931. 4 pp.

Pamphlet

Richardson Archives, Winnipeg.

210. Letter from Dr. A.G. Dorland, Head of the Department of History, University of Western Ontario, to Mr. D. Manson, Secretary of the Royal Commission on Radio Broadcasting, 12 February 1929.

A report on the programme of educational broadcasting at the University of Western Ontario. Dr. Dorland enclosed a "Radio Programme and List of Extension Lectures" of the Extension Division, University of Western Ontario, 1928-1929.

Public record

PAC, Department of Communications Records, RG97, Vol. 75, file 227-9-3.

211. Spry, Graham. "Should radio be nationalized in Canada?" *Saturday Night*, 31 January 1931, p. 2.

Graham Spry was the Chairman of the Canadian Radio League. This league supported the general principle of the Royal Commission on Radio Communications (Aird Report) which recommended that a national broadcasting company should be established.

Photocopy

Spry Papers, Ottawa.

212. Canada. *Commission royale de la radiodiffusion*. Rapport. Ottawa, Imprimeur du roi, 1929. 30 pp.

In response to the demands for government regulations in radio broadcasting in Canada in the late 1920's, the Aird Commission was appointed 6 December 1928. It recommended the nationalization of all stations, networks and programmes.

Book

PAC, Library.

NATIONAL RADIO BROADCASTING

213. Minutes of the first meeting of the Canadian Radio Broadcasting Commission, 18 January 1933.

The first page of a two volume set of minutes of the CRBC from 1933 to 1936.

Public record

PAC, Records of the Canadian Broadcasting Commission, RG41, Vol. 5.

214. Members of the Canadian Radio Broadcasting Commission, Ottawa, ca. 1933.

Left to right are Thomas Maher, W.A. Steel, R.P. Landry and Hector Charlesworth.

Photograph

PAC, National Photograph Collection, C-66231.

215. Letter from W.S. Thompson, Director of Publicity, Canadian National Railways, to E.D. Roberts, broadcasting operator, Publicity Department, CNR, 10 April 1933.

A memorandum regarding the transfer of CNR radio stations and facilities to the Canadian Radio Broadcasting Commission.

Manuscript

PAC, Weir Papers, MG30 D64, Vol. 7, file "Correspondence, 1915-1962".

216. *CRC Programs. Canada's tenth anniversary radio celebration and opening of CRCM Radio Commission's new Montreal station.* Ottawa, King's Printer, 1933. 20 pp.

Pamphlet

PAC, Weir Papers, MG30 D64, Vol. 22, file CRBC.

217. Maurice Duplessis, Premier of Quebec, broadcasting during the 1930's.

Photograph

PAC, National Photograph Collection, C-19522.

218. *The Premier speaks to the people.* Ottawa, Dominion Conservative Headquarters, 1935. 20 pp.

Prime Minister R.B. Bennett's first address in which he enunciates Canada's "New Deal", 2 January 1935.

Pamphlet

PAC, Library, Pamphlet Collection.

219. Letter from F.D.L. Smith, Editor of the *Toronto Mail and Empire*, to Rt. Hon. R.B. Bennett, 6 January 1935.

The letter shows the close relationship between the press and radio broadcasting as evidenced by the quotation: "Having heard you on the air, millions are eager to see the newspaper the next day and read your statements in cold print."

Manuscript

Bennett Papers, University of New Brunswick Library, Vol. 718, p. 441681.

220. Letter from A.E. Read, general merchant and notary public, Longworth, British Columbia, to Rt. Hon. R.B. Bennett, 4 September 1935.

This letter illustrates the remoteness of vast portions of Canada for receiving radio signals.

Manuscript

Bennett Papers, University of New Brunswick Library, Vol. 718, p. 441868.

221. J. Frank Willis with microphone at the Moose River, Nova Scotia mine disaster, 12 April 1936.

Photograph

PAC, National Photograph Collection, C-66464.

222. Moose River mine disaster microphone, April 1936.

Model of the microphone lowered through a drill hole to the men trapped in the Moose River mine.

Artifact

National Museum of Science and Technology, Ottawa.

223. Maritime Telegraph & Telephone Co. Ltd. employee, J. Allister Bowman, kneeling, uses earphones to listen for word from entombed men in Moose River mine disaster, Nova Scotia, April 1936.

Photograph

Bell Canada, Telephone Historical Collection, no. 26366-4.

224. "Really rescued! Robertson, Scadding both out." From Toronto ~~Star~~, 23 April 1936, p. 1.

Clipping of the rescue of Dr. D. Edwin Robertson and Alfred Scadding from the Moose River mine disaster, 23 April 1936.

Newspaper

National Library of Canada, Newspaper Section.

225. Proclamation directing that the Canadian Broadcasting Act be brought into force upon, from and after 2 November 1936.

Public record

PAC, Records of the Registrar General, RG68, Vol. 1017.

226. *The C.B.C. Farm Radio Forum, a series of Tuesday evening broadcasts.* Spring 1941. 4pp.

The National Farm Radio Forum was launched in January 1941 as a group discussions project for the rural areas of Canada and was sponsored by the Canadian Broadcasting Association, the Canadian Federation of Agriculture and the Canadian Association of Adult Education.

Pamphlet

PAC, National Farm Radio Forum, MG28 I68, Vol. 107.

227. An early Farm Forum planning session, 1941.

Planning Farm Forum broadcasts and studying material for the 1942-1943 season are: Neil Morrison, Canadian Broadcasting Corporation; Dr. E.A. Corbett, Director of the Canadian Association for Adult Education; Leonard Harman, Secretary, National Farm Forum; Ken MacTaggart, Director of Information, National Selective Service; Elizabeth Hudson, Assistant Secretary, National Farm Radio Forum, and O.J.W. Shugg, Supervisor of the CBC Farm Broadcasts.

Photograph

PAC, National Photograph Collection, C-70772.

228. Programme for the CBC International Service for September 1945.

The CBC International Service officially opened in February 1945 with programmes directed to Canadian troops overseas and to European listeners. The programmes were beamed from shortwave transmitters at Sackville, New Brunswick. Later the service was expanded to Latin America.

Public record

PAC, Department of External Affairs Records, RG25, G2, Vol. 2208, file 9901-3-40, part 1.

229. Transmission towers of CBC International Service station, Sackville, New Brunswick, not dated.

Photograph

PAC, National Photograph Collection, PA-92376.

230. Canadian Broadcasting Corporation. Five years of achievement, 1936-1941.

A series of illustrated pamphlets describing the work of the CBC. Two pamphlets, *Special events* and *French network*, are displayed.

Pamphlets

PAC, Weir Papers, MG30 D64, Vol. 6.

231. *Canadian Broadcasting Corporation Network ... 1943.*

Map; coloured print: 46.6 x 62.1 cm.; [1:10,500,000]

PAC, National Map Collection, 1100-1943.

CANADIAN BROADCASTING CORPORATION WAR CORRESPONDENTS

This service began in December 1939 with the co-operation of the BBC in Britain where two Canadians, one a technician and one a reporter, broadcast to Canadian troops stationed in England and to listeners at home.

The CBC overseas unit expanded rapidly. In 1940 mobile recording units with portable equipment were shipped overseas and used in Britain and Europe. The CBC broadcasters were the first to develop and use equipment of this kind.

At home the CBC News Service was established officially 1 January 1941. Canadians enjoyed prompt news coverage in both English and French at home and abroad.

232. CBC Senior War Correspondent Matthew Halton making sound recording during artillery bombardment of Ortona, Italy, 1943.

Photograph

CBC Collection

PAC, National Photograph Collection, C-66628.

233. CBC correspondent Peter Stursberg making sound recording of the bells of St. Thomas' Cathedral, Ortona, Italy, 1944.

Photograph

PAC, National Photograph Collection, DND Army 31404.

234. Personnel of CBC Mobile Unit No. 4, Italy, ca. 1943.

Left to right are Matthew Halton, Capt. John Howard, Marcel Ouimet, A.J. McDonald, P.F. Johnson and Peter Stursberg.

Photograph

CBC Collection

PAC, National Photograph Collection, C-66625.

235. CBC Senior War Correspondent Matthew Halton with the recording van of Mobile Unit No. 4 near Ortona, Italy, 1943.

Photograph

CBC Collection

PAC, National Photograph Collection, C-66626.

236. CBC personnel interviewing Lieut. Kemp Edwards, RCNVR, Britain, ca. 1943.

Left to right are Rooney Pelletier and Art Holmes.

Photograph

CBC Collection

PAC, National Photograph Collection, C-66232.

237. CBC correspondent Peter Stursberg interviewing S/L Jack Charles, D.F.C., RAF, Biggin Hill, England, 1943.

Photograph

CBC Collection

PAC, National Photograph Collection, C-66627.

238. CBC personnel René Levesque and Norman Eaves interviewing Lieut. Col. J.A. Dextraze, Royal 22e Regiment, Korea, 16 August 1951.

Photograph

PAC, National Photograph Collection, SF-2538.

239. Handbooks, licence and insignia carried by CBC correspondent Peter Stursberg during the Second World War, 1943-1945.

Items

Peter Stursberg, Ottawa.

240. CBC "Crown" microphone, ca. 1939.

This type of microphone was used to cover the Royal Tour of 1939 and was also used throughout the war.

Artifact

National Museum of Science and Technology, Ottawa.

241. Extracts of songs by Canadian servicemen stationed in England, May 1941. Recorded by the Canadian Broadcasting Corporation.

English tape: 1:20 min.

PAC, National Film Archives, Historical Sound Recordings Section.

242. Extract of a report by Matthew Halton, CBC war correspondent, about Canadian attack on German-held airfield at Carpiquet in northern France, 5 July 1944. A brief section of the report was censored for security reasons. Recorded and broadcast by the Canadian Broadcasting Corporation.

English tape: 3:00 min.

PAC, National Film Archives, Historical Sound Recordings Section.

243. Report by Peter Stursberg, CBC war correspondent, about the Allied entry into Rome, broadcast live by shortwave from the outskirts of Rome, 4 June 1944. Recorded by the Canadian Broadcasting Corporation.

English tape: 2:30 min.

PAC, National Film Archives, Historical Sound Recordings Section.

- * 244. Extract of reading of surrender terms by Lieut. Charles Foulkes, commander of the 1st Canadian Corps in Holland to Col. Gen. Johannes Blaskowitz, commander of the German 25th Army in Holland during a conference held in the Hotel Ewereld at Wageningen, Holland, 5 May 1945. Recorded and broadcast by the Canadian Broadcasting Corporation.

English tape: 2:00 min.

PAC, National Film Archives, Historical Sound Recordings Section.

245. Extract of a report by Marcel Ouimet, CBC war correspondent, about the liberation of Paris by Allied forces, 26 August 1944. Recorded and broadcast by the Canadian Broadcasting Corporation.

French tape: 1:40 min.

PAC, National Film Archives, Historical Sound Recordings Section.

246. Station CHAK, Aklavik, Northwest Territories, "Your Friendly voice of the Arctic", interior of station, not dated.

Photograph

PAC, National Photograph Collection, PA-93109.

247. The Governor General, Viscount Alexander of Tunis, visiting station CHAK, Aklavik, Northwest Territories, July 1949.

Photograph

PAC, National Photograph Collection, C-66990.

248. RCMP Csts. J. Stafford and N. Yates listening to the Northern Messenger Service, Chesterfield Inlet, Northwest Territories, winter 1935-1936.

The Northern Messenger Service began on 2 December 1933, by the Canadian Radio Broadcasting Commission for broadcasting personal messages to isolated northern Canada.

Photograph

PAC, National Photograph Collection, C-64900.

249. Letter from Henry A. Larsen, Master of RCMP *St. Roch*, to his wife Mary, 7 February 1942.

Larsen indicates that he had received messages over the Northern Messenger Service.

Manuscript

PAC, Larsen Papers, MG30 C45.

250. Henry Larsen on the RCMP *St. Roch*.

Photograph

PAC, National Photograph Collection, C-70771.

251. Sample page from a scrapbook report presented to the Fowler Royal Commission on Broadcasting, 1956, by station CHAB, Moose Jaw, Saskatchewan, reporting on its public service activities.

This scrapbook illustrates CHAB's activities during a severe winter storm in the Moose Jaw area on 12 December 1955. The collection of reports was submitted in competition for the John J. Gillin, Jr. Memorial Award.

Public record

PAC, Records of the Fowler Royal Commission on Broadcasting, 1956, RG33, 36, Vol. 29.

252. Canada. *Royal Commission on Broadcasting*. Report. Ottawa, Queen's Printer, [1957]. Vol. 1.

Also known as the Fowler Royal Commission on Broadcasting.

Book

PAC, Library.

253. *Les réseaux de la Société Radio-Canada au 31 mars 1959*.

The year 1958 is of importance in the history of Canadian broadcasting. For the first time CBC radio service was extended to the Canadian North and for the first time Canadians were linked by a coast-to-coast television network. This map is from the Société Radio-Canada, *Rapport annuel* for 1958-1959.

Map; coloured print: 40.1 x 27.3 cm.

National Library of Canada.

VIII TELEVISION

Regular television broadcasting began in England in 1936, in France in 1937, and in New York in 1939. It is generally accepted that television arrived in Canada in September of 1952; nevertheless, the early Canadian television experiments and indeed, broadcasts by CKAC in Montreal in the early 1930's have received far too little attention. It is true that the war curtailed the development of television everywhere. In Canada, even after the war, the tremendous expense of this new medium, the transmission complications faced by the distances between large urban centres, and the governments desire to control the quality of television service and programming inhibited early development.

Canadian television was recognized as a tremendous tool for the promotion of national unity and understanding. Television now provides a broad panoramic image of Canada to Canadians on an immediate basis. The social implications of this pervasive medium will be the subject of study for many years.

PIONEER YEARS

254. Scanning disc TV receiver, 1932.

This is a replica of the television set built by Alphonse Ouimet in 1932. It uses a scanning disc to sweep a beam of light across the screen and a mirror arrangement to enlarge the picture.

Radio station CKAC in Montreal was broadcasting television in 1931 on an experimental basis but there were probably not more than a dozen receivers in the whole city.

Artifact

National Museum of Science and Technology, Ottawa.

255. Letter from C.P. Edwards, Director of Radio Service, Department of Marine, to Leonard Spencer, CKAC, Montreal. Montreal *La Presse*, 9 October 1931.

Letter outlines conditions for the granting of a licence for experimental television.

Manuscript

PAC, Spencer Papers, MG30 A39.

256. Prospectus of Canadian Television Limited, Montreal.

This company was formed on 15 February 1932 for the purpose of manufacturing television transmitting apparatus for broadcasting stations and receiving equipment for use in homes and theatres. The operations of the company were short lived.

Manuscript

PAC, Spencer Papers, MG30 A39.

257. Letter from Leonard Spencer, Chief Engineer, station CKAC, Montreal, to the Canadian Radio Broadcasting Commission, 19 September 1933.

A reply to a questionnaire of the CRBC regarding experimental television.

Manuscript

PAC, Spencer Papers, MG30 A39.

258. "*La Presse* a inauguré hier soir son poste de télévision." Montreal *La Presse*, 20 July 1932, p. 11.

Newspaper

National Library of Canada, Newspaper Section.

259. Early television camera, ca. 1931.

Photograph

Station CKAC, Montreal

PAC, National Photograph Collection, C-64048.

260. One of the first television receivers, 1932.

This receiver has a 6" x 8" screen and the picture appeared in red and black.

Photograph

Station CKAC, Montreal

PAC, National Photograph Collection, C-64052.

261. Letter from A.E. Walford, Treasurer of James A. Ogilvy's Limited, to C.P. Edwards, Director of Radio Service, Department of Marine, 14 February 1934.

This letter indicates the experimental television work that the department store had carried out between 1931-1934.

Public record

PAC, Department of the Marine Records, RG42, Vol. 492, file 209-7-133.

262. Letter from W.D. Neil, General Manager of Communications, Canadian Pacific Railway, to V.I. Smart, Deputy Minister of Transport, 2 April 1937.

An expression of regret that the conditions for the obtaining of a licence for experimental television are so stringent.

Public record

PAC, Department of Communications, RG97, file 6210-82.

263. Letter from Hon. C.D. Howe, Minister of Marine, to Lieut. Col. W.A. Steel, CRBC Commissioner, 21 May 1936.

A letter regarding the possible granting of monopoly rights on television for Canada to the Canadian Pacific Railway Company.

Manuscript

PAC, Steel Papers, MG30 A17, Vol. 29, file 88.

264. Excerpts of letter from Lieut. Col. W.A. Steel, CRBC Commissioner, to Hon. C.D. Howe, Minister of Marine, 28 May 1936.

A report on the conditions of television in Canada with recommendations.

Manuscript

PAC, Steel Papers, MG30 A17, Vol. 29, file 88.

THE ADVENT OF COMMERCIAL TELEVISION

265. Inauguration programme on the occasion of the beginning of television service on CBFT-TV, Montreal, 6 September 1952.

Manuscript

Société Radio-Canada, Montreal.

266. Rt. Hon. Louis St. Laurent, Prime Minister of Canada, inaugurating Canadian television broadcasting on CBFT-TV, Montreal, 6 September 1952.

Photograph

Société Radio-Canada, Montreal.

267. Speech delivered by Rt. Hon. Louis St. Laurent on the occasion of the beginning of television service on CBFT-TV, Montreal, 6 September 1952.

Manuscript

Société Radio-Canada, Montreal.

268. Clark, Gerald. "T.V. comes to Canada and C.B.C. hopes it'll be better than in the U.S." *Weekend Picture Magazine*, 6 September 1952, p. 2.

Some aspirations for Canadian television.

Newspaper

Société Radio-Canada, Montreal.

269. Fergus Mutrie, Hon. J.J. McCain, Davidson Dunton and Ernest Bushnell on the occasion of the beginning of television service on CBLT-TV, Toronto, 8 September 1952.

Photograph

CBC Collection

PAC, National Photograph Collection, C-68906.

270. *Le réseau de télévision de la Société Radio-Canada* [1954].

This map depicts Canadian television broadcasting in its infancy. By 1958 the inchoate network shown here grew to include the longest microwave system in the world. This map is from the Société Radio-Canada, *Rapport annuel* for 1953-1954.

Map; coloured print: 21.0 x 27.9 cm.; [1:24,000,000]

National Library of Canada.

271. Master control room, CFCF-TV, Montreal.

Photograph

Canadian Marconi Collection

PAC, National Photograph Collection, C-66694.

272. View of two studios at CKNX-TV, Wingham, Ontario.

Photograph

PAC, Historical Photograph Collection, C-66702.

273. Excerpt from memorandum from Dalton K. Camp to Gordon Churchill, 19 February 1957, p. 2.

Manuscript

PAC, Churchill Papers, MG32 B9, Vol. 1, file Dalton Camp, 1957.

274. Television camera crew on location during Royal Tour, Ottawa, 1959.

Photograph

CBC Collection

PAC, National Photograph Collection, C-53532.

275. Bob Goldham covers a replay from gondola with Bill Hewitt.

Photograph

CBC Collection

PAC, National Photograph Collection, C-66702.

276. *CTV coverage map ... 1973.*

Map; coloured print: 20.0 x 56.0 cm.; [1:10,000,000]

PAC, National Map Collection, 1100-1973.

277. *Cable television systems licenced by the C.R.T.C. in the Municipality of Metropolitan Toronto and environs ... 1972.*

This map shows the area covered by each cable carrier licenced to operate in Toronto.

Map; coloured print: 51.5 x 85.6 cm.; [1:84,000]

PAC, National Map Collection, 449-Toronto-1972.

TELEVISION PRESENTATION

278. Videotape presentations, one in English and one in French, illustrating the dramatic impact of television on Canadian lives. Presented is a mosaic of twenty years in television compiled by the National Film Archives from CTV, CBC, and Global sources.

Videotape

PAC, National Film Archives.

IX TOWARDS PERFECTION: EXAMPLES OF CARRIERS AND SYSTEMS, 1950's AND 1960's

CANADIAN OVERSEAS TELECOMMUNICATION CORPORATION (COTC)

279. *World wide network: Canadian Overseas Telecommunication Organization/ Réseau mondial: la Société canadienne des télécommunications transmarines....* [June 1974].

The Canadian Overseas Telecommunication Corporation, a crown corporation responsible for establishing and maintaining communications with countries overseas, was incorporated in 1950 to maintain and operate external telecommunication services for the conduct of public communications between Canada and overseas points. This mandate includes involvement in areas such as cable, radiotelegraph, radiotelephone and satellite services.

Map; coloured print: 38.3 x 117.0 cm.

PAC, National Map Collection, 10,000-1974.

280. A piece of the first trans-Atlantic telephone cable completed in September 1956.

Artifact

Canadian Overseas Telecommunication Corporation, Montreal.

281. The route of the trans-Atlantic telephone cable system which came into service 25 September 1956.

This was a joint undertaking by the Canadian Overseas Telecommunication Corporation, the American Telephone and Telegraph Company and the British Post Office. It was the first long-distance telephone cable under any ocean. There has been trans-Atlantic telephone service since 1927 over radiotelephone circuit. The radio medium, however, was subject to atmospheric disruptions and electrical disturbances; the telegraph cables were incapable of transmitting the higher frequency currents required for voice transmission.

Diagram

Canadian Overseas Telecommunication Corporation, Montreal.

282. The landing of the trans-Atlantic telephone cable at Clarenville, Newfoundland, 22 June 1955.

In the distance is Her Majesty's telegraph ship *Monarch*, then the largest cable-laying vessel in the world.

Photograph

COTC Collection

PAC, National Photograph Collection, PA-93161.

MICROWAVE

The construction of microwave repeater towers from coast-to-coast in Canada by the Trans-Canada Telephone System and CN/CP Telecommunications has provided Canada with important transmission facilities required to meet the increased needs of the Canadian public for telecommunication carrier services. Nearly all long-distance communications, such as high quality telephone and television, travel along these electronic microwave highways at the speed of light. Live television can be seen simultaneously by Canadians from coast-to-coast in the more densely populated regions of Canada where microwave routes were economically feasible. Microwave networks, however, are too costly to install in remote or isolated areas in the North and alternate methods of transmitting have had to be developed to meet Canada's unique problems in linking all parts of the country by telecommunications. Canadian National Telecommunications did, however, push its microwaves north in 1958 to service the Northwest Territories and the Yukon.

283. Operations building and antenna tower at a site on the Mid-Canada line, northern Manitoba, 1956.

Photograph

Bell Canada, Telephone Historical Collection, no. 14378.

284. Canada's first television coast-to-coast closed circuit press conference. J.-Alphonse Ouimet (left), President and General Manager, CBC, with Thomas W. Eadie, President, Bell Telephone Company of Canada, at Toronto, Ontario, CBC studio, 18 June 1958.

This event marked the completion of the microwave network from Sydney, Nova Scotia to Victoria, British Columbia. It is the longest system of its kind in the world.

Photograph

CBC Collection

PAC, National Photograph Collection, C-66459.

285. ~~From the Bell Telephone Company of Canada~~. [Montreal, Bell Telephone Company of Canada, 1958].
22 pp.

A description of the first trans-Canada microwave system.

Pamphlet

PAC, Department of Transport, RG12, Vol. 1617, file 6800-67-1.

286. Models of line-of-sight microwave towers similar to those on the trans-Canada microwave system.

Artifact

Bell Canada, Telephone Historical Collection.

287. Trans-Canada Telephone System's microwave tower at the top of Lost Horse Mountain in British Columbia, 1950's.

In 1958 the trans-Canada microwave system was inaugurated.

Photograph

Bell Canada, Telephone Historical Collection, no. 19444.

288. Trans-Canada microwave system tower with horn antenna at Olive, Ontario, 1950's.

Photograph

Bell Canada, Telephone Historical Collection, no. 23729-2.

289. Canadian National Telecommunications, microwave site, Northwest Territories and Yukon, ca. 1958.

Photograph

Canadian National, Montreal, no. 70176-7.

290. *Canadian National/Canadian Pacific Telecommunications. Trans-continental microwave system* [1969].

CN/CP Telecommunications, a consortium of the telecommunications departments of Canadian National and Canadian Pacific operates as a nation-wide telecommunications carrier. It dominates the telegraph sector of Canadian carrier services and offers telephone services to certain areas in Newfoundland, the Yukon and the Northwest Territories.

Map; photograph: 20.7 x 25.5 cm.; [1:30,000,000]

Canadian National, Montreal.

TROPOSPHERIC SCATTER

Tropospheric scatter systems, using large antennae and high power, can bridge about 200 miles in one hop unlike ordinary microwave transmission which requires the installation of relay stations about 30 miles apart. Major telecommunication routes into the Arctic are using these systems although they are not suitable for carrying television.

The DEW line corridor that crosses Canada in an east-west direction is a tropospheric system owned and operated by the United States Army. Canadian National Telecommunications has a tropospheric system from Lady Franklin Point to Hay River to connect the DEW line to the south.

In 1958 Bell Canada opened a tropospheric scatter radio relay system for telephone service from Quebec to Knob Lake, Seven Islands, Goose Bay and Schefferville.

291. Completed antennae at Emeril, Quebec along the route of the Quebec North Shore Railway, 1958. Copyright: John A. Rodriguez, Seven Islands.

Photograph

Bell Canada, Telephone Historical Collection, no. 19441.

292. *Northeastern territories. Territoires du Nord-Est....* Bell Telephone Company, November 1964. 52 pp.

A trilingual telephone directory.

Pamphlet

Bell Canada, Telephone Historical Collection.

293. Mrs. Nakie Tiglee, an Eskimo woman, tries out newly installed telephone at her home in Akaluit, near Frobisher Bay, Northwest Territories, 1964.

Photograph

Bell Canada, Telephone Historical Collection, no. 23497.

294. *Major Canadian telecommunications systems, 1974.*

This map shows major systems only, including microwave, high frequency radio routes, and Telesat earth stations. The multiplicity and complexity of Canada's telecommunications network are much greater than this map indicates.

Map; coloured print: 101.4 x 141.8 cm.; 1:4,055,040

Trans-Canada Telephone System, Ottawa.

X THE SATELLITE AGE

Alouette, Canada's first artificial earth satellite, also the first scientific satellite designed and built entirely by a nation other than the United States or the Soviet Union, was launched 29 September 1962. Designed by the Canadian Defence Research Telecommunications Establishment (DRTE) of the Defence Research Board, *Alouette* is a Canadian contribution to a joint programme with the United States to investigate the ionosphere.

295. *Alouette I*, a model of the rocket used to launch the satellite, and a meritorious award for the project team of Canadian scientists and engineers responsible for Canada's entry into the space age.

Artifact

Communications Research Centre, Shirley Bay, Ottawa.

296. Dr. G. Holbrook (left), Director General, Canadian Research Centre receiving the NASA Group Achievement Award from Dr. J. Chapman, Assistant Deputy Minister, Department of Communications.

Photograph

Communications Research Centre, Shirley Bay, Ottawa, CRC72-24655.

297. Panel of Canadian research satellites.

Alouette I - launched 29 September 1962, CRC66-12810

Alouette II - launched 28 November 1965, CRC65-10982

I.S.I.S. I - launched 30 January 1969, CRC64-9110

I.S.I.S. II - launched 31 March 1971, CRC71-22752

All were launched from Vandenburg, California.

Photographs

Communications Research Centre, Shirley Bay, Ottawa.

298. Communications Research Centre, Shirley Bay, Ottawa.

Photograph

Communications Research Centre, Shirley Bay, Ottawa, CRC73-28174.

299. ~~Communications Technology Satellite~~ (CTS) to be launched in 1975 from Kennedy Space Centre is to increase technical knowledge and to investigate applications of space communications using superhigh frequencies and simple, low cost ground stations. In addition this satellite will be used to conduct some twenty social experiments including telemedicine and tele-education in the North.

Photograph

Communications Research Centre, Shirley Bay, Ottawa, CRC72-24683.

300. *Anik*, Canada's domestic communications satellite owned and operated by Telesat Canada (one-third scale animated model of *Anik I* or *II*).

Canada is the first country in the world to have its own domestic satellite service. *Anik I*, launched 9 November 1972, was the world's first domestic synchronous communications satellite. Telesat Canada was established by an Act of Parliament of 1969 as a commercial venture "to establish satellite telecommunication systems providing, on a commercial basis, telecommunications services between locations in Canada...." Commercial service was provided 11 January 1973. *Anik I* and *II* offer additional alternative means of communication particularly in northern parts of the country where wires, cables, or chains of microwave relay towers are economically impractical. At last, high quality telephone and live television are accessible to many northern communities formerly deprived of these sophisticated means of communications.

Artifact

Telesat Canada, Ottawa.

301. Extract of telephone conversation between Rt. Hon. Pierre Elliott Trudeau, Prime Minister of Canada, and Dr. Joe MacInnis, Director of Arctic 3, relayed via *Anik* satellite, 17 December 1972. Recorded by Ches Beachell of the National Film Board.

English tape: 1:30 min.

PAC, National Film Archives, Historical Sound Recordings Section.

302. Extract of telephone conversation between Rt. Hon. Pierre Elliott Trudeau, Prime Minister of Canada, and Kim Domville of the National Film Board, relayed via *Anik* satellite, 17 December 1972. Recorded by Ches Beachell of the National Film Board.

French tape: 1:35 min.

PAC, National Film Archives, Historical Sound Recordings Section.

303. Selected satellite imagery prepared by the Canada Centre for Remote Sensing.

Communication is no longer a process which occurs only between man and man. These photographs taken by the *Earth Resources Technology Satellite (ERTS)* are the product of communication between machine and man. Through its electronic sensors the satellite accumulated a wealth of information, which it transmits to the earth by means of a video signal.

Coloured transparencies: each 23 x 20 cm.; [1:1,000,000]

PAC, National Map Collection, 1100-1973-74.

304. Parabolic antenna, Prince Albert, Saskatchewan.

Photograph

Communications Research Centre, Shirley Bay, Ottawa, CRC72-25201.

XI SOME DATES IN CANADIAN TELECOMMUNICATIONS

- 1846 Transmission of first electric telegraph message in Canada between Toronto and Hamilton using the Morse magnetic telegraph.
- 1847-1848 Opening of telegraph systems in Canada East, Canada West and the Maritimes.
- 1852 Laying of the first submarine cable in North America between New Brunswick and Prince Edward Island.
- 1858 Landing of the short-lived but first trans-Atlantic cable from Ireland to Newfoundland.
- 1866 Completion of the successful trans-Atlantic cable from Ireland to Newfoundland by the famous *Great Eastern*.
- 1874 Invention of the telephone by Alexander Graham Bell at Brantford, Ontario.
- 1876 World's first long distance telephone call between Brantford and Paris, Ontario.
- 1877 Leasing of Canada's first commercial telephones to Prime Minister Alexander Mackenzie by Professor Melville Bell, father of the inventor.
- 1878 Opening of the first Canadian telephone exchange in Hamilton, Ontario by the Hamilton District Telegraph Company.
- 1880 Incorporation of the Bell Telephone Company of Canada.
- 1880-1885 Building of the Canadian Pacific Telegraph.
- 1881 Amalgamation of the Montreal Telegraph Company and the Dominion Telegraph Company with the Great North Western Telegraph Company.
- 1881 Laying of world's first submarine telephone cable between Windsor and Detroit.
- 1901 Marconi in Newfoundland receives trans-Atlantic wireless signal from Cornwall, England.
- 1902 Setting up of a wireless telegraphy station linking Glace Bay, Nova Scotia and Clifden, Ireland by Marconi with the backing of the Canadian government.
- 1902 Completion of the Pacific cable linking Canada, New Zealand and Australia.

- 1904 Establishment of six Marconi wireless stations by the Canadian government in the Gulf of St. Lawrence for navigational purposes.
- 1905 Passing of the first Canadian Wireless Telegraph Act.
- 1906 World's first two-way Morse broadcast across the Atlantic completed by a Canadian, Reginald A. Fessenden.
- 1906 Transmission of the world's first radio broadcast of voice and music by Reginald A. Fessenden from Brant Rock, Massachusetts to ships at sea.
- 1907 Transmission of the first commercial press message by wireless, Glace Bay, Nova Scotia to Clifden, Ireland.
- 1913 Passing of the second Canadian Radio Telegraph Act which included radiotelephony.
- 1919 Issuing of the first wireless telephony transmitter licence to station XWA in Montreal (later CFCF).
- 1920 Formation of the Canadian National Telegraph Company.
- 1922 Opening of Canada's first French language radio broadcasting station, CKAC, Montreal.
- 1923 Beginning of the Northwest Territories and Yukon Radio System.
- 1923 Opening of Canada's first publicly owned radio station, CKY, Winnipeg.
- 1923 Commencement of CNR radio service on trains.
- 1923 Canada's first network broadcast, arranged by CNR between Montreal and Ottawa.
- 1926 Opening of wireless communication between Canada and England using Marconi beam stations.
- 1927 First trans-Canada radio broadcast over telephone and telegraph lines for the Diamond Jubilee of Confederation celebrations.
- 1927 Introduction of commercial telephone service to Great Britain.
- 1928 Opening of the Grain Belt Network in the Prairie Provinces.
- 1929 *Report of the Royal Commission on Broadcasting* (Aird Report).
- 1930 Commencement of national broadcasting by CPR.
- 1930 Formation of the Canadian Radio League.

- 1931 Canada's first live television broadcast by CKAC, Montreal.
- 1932 Inauguration of the Trans-Canada Telephone System.
- 1932 Appointment of the Canadian Radio Broadcasting Commission.
- 1933 Commencement of the Northern Messenger Service.
- 1936 Establishment of the Canadian Broadcasting Corporation (CBC).
- 1944 Opening of the Dominion Network which later merged with the Trans-Canada Network (1962).
- 1945 Commencement of the CBC International Service.
- 1947 Beginning of joint operations by CN and CP telegraph.
- 1950 Incorporation of the Canadian Overseas Telecommunication Corporation (COTC).
- 1952 Beginning of commercial television in Canada at CBFT, Montreal and CBLT, Toronto.
- 1956 Introduction of Telex in Canada by CN/CP.
- 1956 Completion of the first trans-Atlantic telephone cable.
- 1956 Completion of an over-the-horizon radio relay chain in the North (tropospheric scatter).
- 1957 *Report of the Royal Commission on Broadcasting (Fowler Report).*
- 1958 Inauguration of the first trans-Canada microwave system.
- 1958 Opening of coast-to-coast television network.
- 1958 Opening of the CBC (radio) Northern Service.
- 1959 Extension of microwave to Newfoundland.
- 1961 Opening of the CTV Television Network.
- 1961 Completion of Grande Prairie, Alberta - Alaska microwave system by Canadian National Telecommunications (CNT).
- 1962 Launching of *Alouette I*, Canada's first artificial earth satellite.
- 1964 Completion of CN/CP transcontinental microwave system.
- 1969 Incorporation of Telesat Canada to establish satellite telecommunication systems.

- 1971 Commencement of Canada's first French language private television network, the *Télédiffuseurs associés (TVA)*.
- 1972 Launching of *Anik I*, Canada's and the world's first domestic communications satellite.
- 1974 Opening of Global Television Network.
- 1974 Broadcasting of live television from the Arctic Ocean floor near Resolute Bay.
- 1975 Proposed launching of *Communications Technology Satellite (CTS)*.



3 1761 11550706 3